

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.
SEPTEMBER 22, 1921

Amazing Waste of Public Money in Increase of Salaries to Officers and Employees of New York Federal Reserve Bank.

Editor *Manufacturers Record*:

Richmond, Va., September 12, 1921.

I have your letter of the 10th instant referring to statements made in my recent speech at Augusta, Ga., concerning the extravagant management of the Federal Reserve Bank of New York, and asking for further information in that connection. It is, I believe, entirely true that the management of the Federal Reserve Bank of New York has been distinctly extravagant, despite the reticence of the officials in this connection, I think I can give you some facts and figures which may be of interest to your readers on this subject.

My observation has been that when it suits their purposes to pose as Government institutions the Reserve Banks are ready enough to fly the Federal colors, but when it comes to assuming responsibilities or sharing the restrictions which apply to Government agencies, there is a change of front and they promptly proclaim their independence. As is well known, the salaries and compensation of all employees of the United States Government, from the President down, are published, and I see no reason why there should be any secrecy as to the salaries or compensation paid to the officers and other employees of the Federal Reserve banks.

The official reports of the Federal Reserve Board show that in the calendar year of 1920 the Federal Reserve Bank of New York's payroll amounted to \$4,639,273. For the calendar year 1918 the payroll was \$3,104,830; an actual increase in payroll since the close of the war of \$1,534,443.

The actual number of officers and employees in 1918 was 2657. The number of employees and officers in 1920 was 2936, an increase of 279 employees. In other words the number of employees increased about 10%, while the salaries increased about 50%.

It is also interesting to note that in the years of acute deflation, from 1919 to 1920, the payroll of the New York Reserve Bank (see annual report Federal Reserve Board 1920, page 272), increased \$777,309, or from \$3,861,964 in 1919 to \$4,639,273 in 1920; although the number of employees on December 31, 1920 was only 2936 as compared with 2863 a year before.

Owing to the secretive policy of the Reserve Board concerning some matters of public interest which ought to be in the open and above board, it is impracticable for me to give you the up-to-date information which you desire regarding the salaries of Reserve Bank officers and employees, but I am submitting for your information and for the information of your readers a list which was prepared from information furnished me sometime ago which I have reason to believe is substantially correct; although I think that it probably understates rather than overstates salaries paid at this time. If, however, it is not entirely correct, it can be readily corrected by Reserve Bank authorities:

List of salaries paid to certain officers of the Federal Reserve Bank of New York, indicating increases in salaries from the time of their employment to 1920-1921. (The Reserve Banks were started in November, 1914).

BENJ. STRONG	\$30,000 to \$50,000	J. D. HIGGINS	\$2,500 to \$12,000
PIERRE JAY	16,000 "	J. W. JONES	2,500 "
J. H. CASE	20,000 "	L. R. ROUNDS	2,000 "
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E. H. HART	"	W. H. HAMILTON	1,500 "
A. W. GILBERT	1,800 "	R. M. O'HARA	1,500 "

*Transferred from Reserve Board to New York Reserve Bank.

I understand certain salaries were raised above the figures shown in this list, which is intended to show the salaries paid to 24 of the "officials" of the New York Reserve Bank some months ago. It will be observed that each one of these "officials" draws a salary as large, if not larger, than United States Senators, one of them as much as six Senators. The list also shows, from the best data available, the enormous increases which have been made in salaries.

It will be observed that these salaries have been increased in numerous cases from 100 to 500%. I have been told that 60 per cent of these "officials" never received over \$1,500 to \$2,500 before they came to the Reserve Bank, but they are now drawing salaries as high as those paid to Cabinet officers.

The salaries paid to about 30 "officials" by the New York Federal Reserve Bank exclusive of the salaries of other employees, amount to about as much as the combined salaries of one-half of the members of the United States Senate, plus the salaries of the President and Vice-President of the United States.

I am also advised that although Cabinet officers and other high officials of the Government, and National bank examiners are limited in their expenses to \$5 per day, that the expense allowances of officers and employees, including bank examiners of the Federal Reserve banks, are practically unlimited, and that an inspection of some of the expense accounts of the Federal Reserve banks would be decidedly edifying to a Congressional Committee if they should be looked into.

I think it would also be interesting to the public to be informed as to the payments made by the Federal Reserve Board and the Federal Reserve banks for "publicity" and "propaganda" and for the printing and distributing of numerous publications which are gotten out under the auspices of the Reserve System, directly or indirectly, and paid for out of public monies. I have reason to believe that the waste in this direction has been enormous.

JOHN SKELTON WILLIAMS.

We urge our readers to study some additional facts given in this issue by Mr. Williams.

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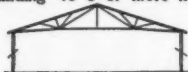




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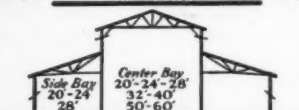
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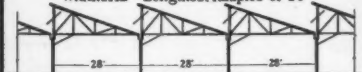
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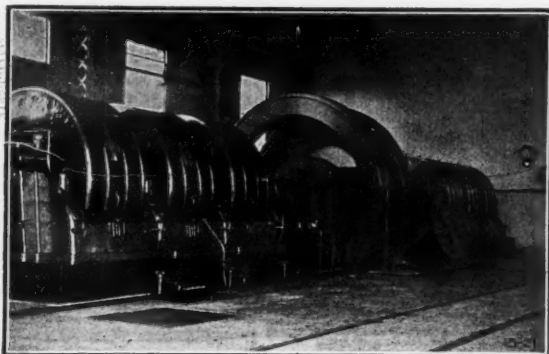
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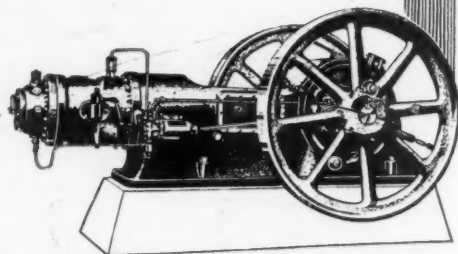
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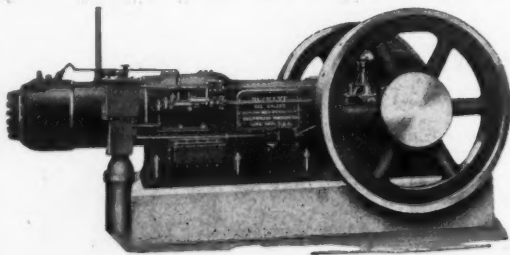


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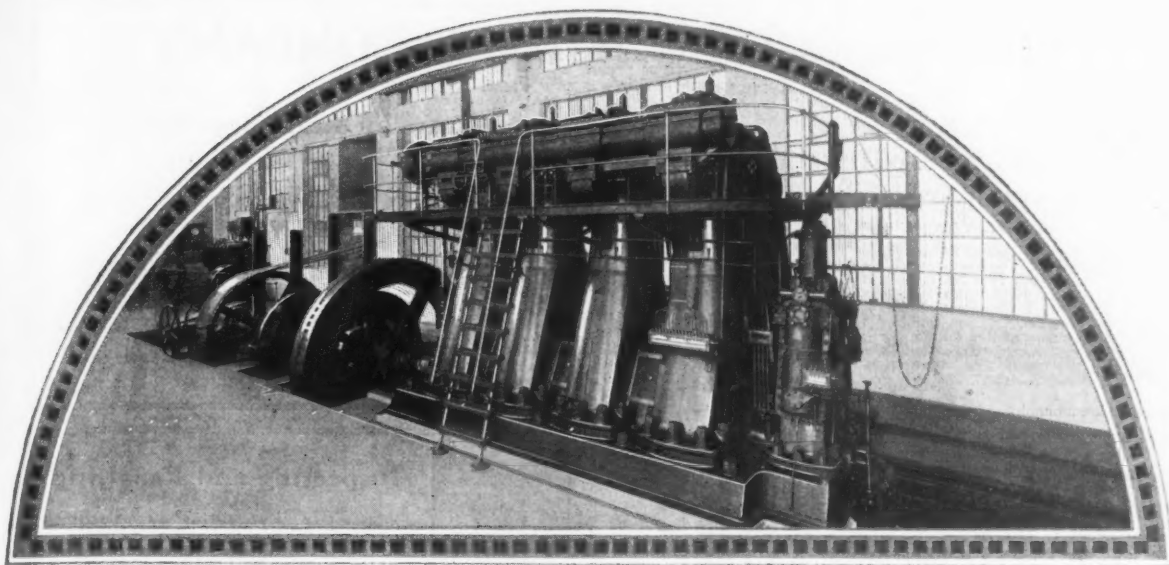
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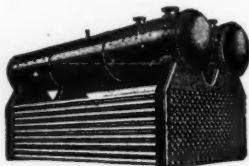
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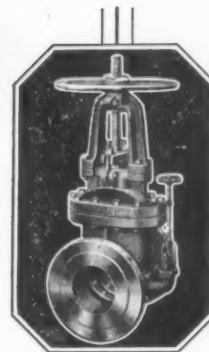
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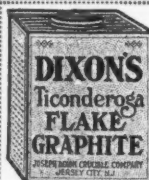
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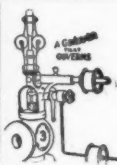
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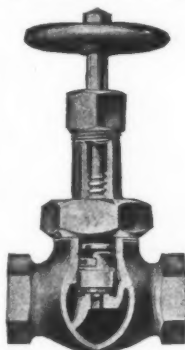
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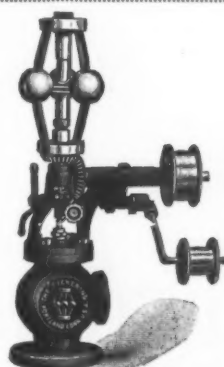
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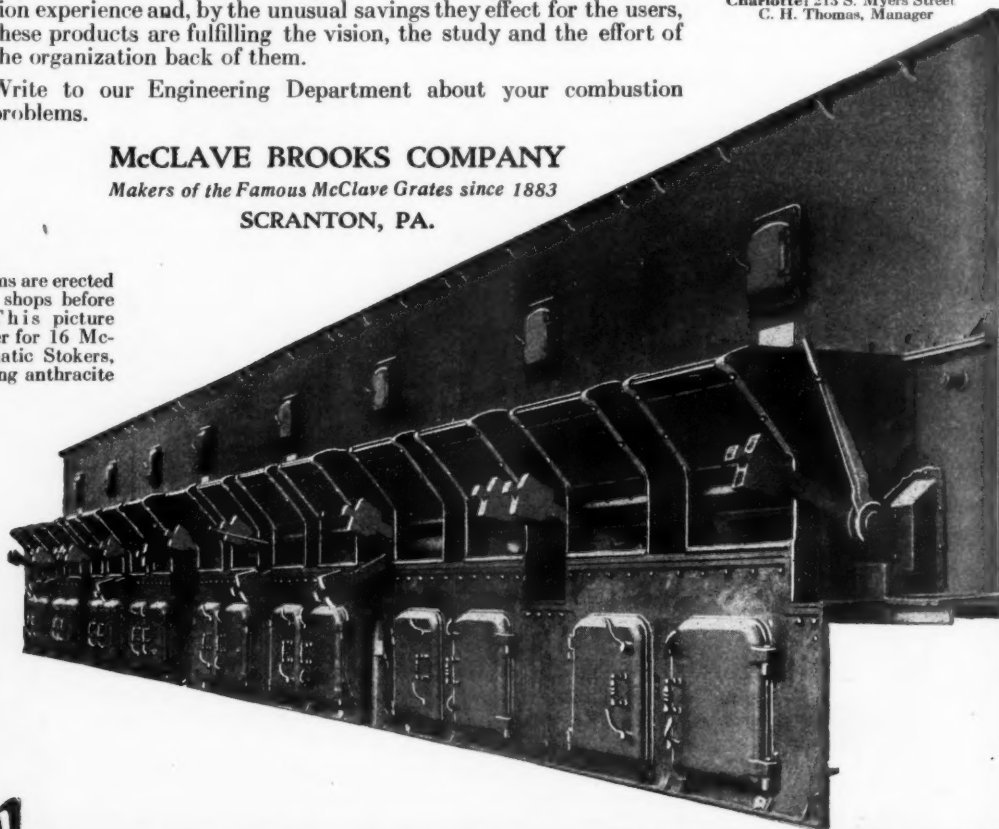
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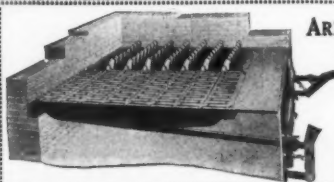
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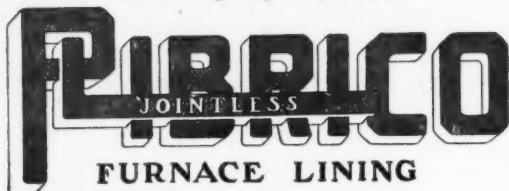


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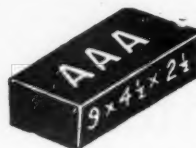


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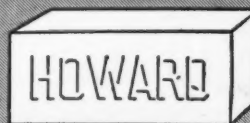
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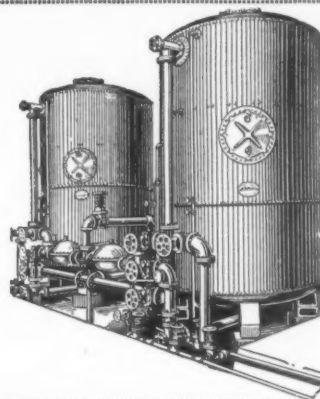
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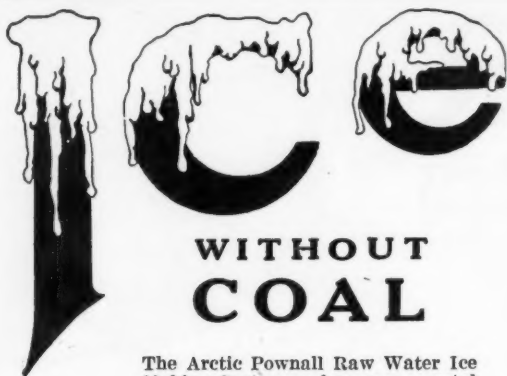
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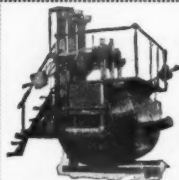
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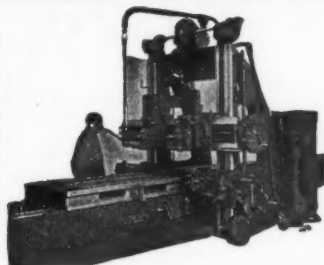
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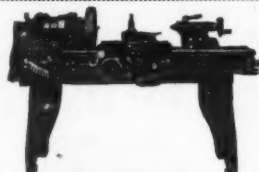


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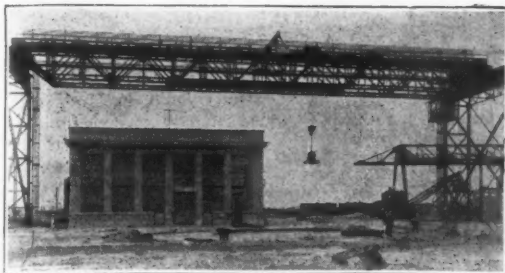
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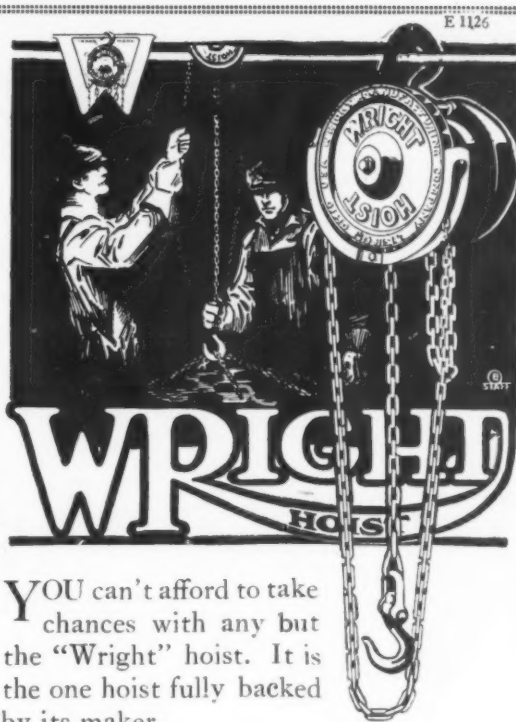
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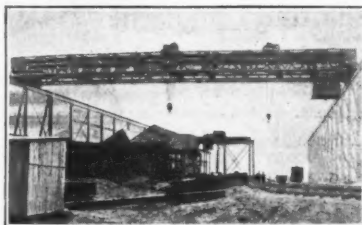


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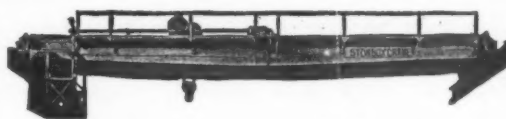
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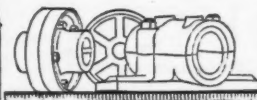
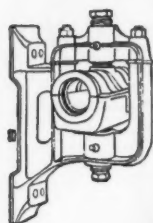
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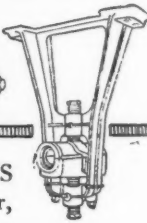
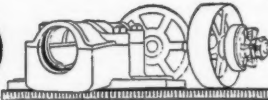
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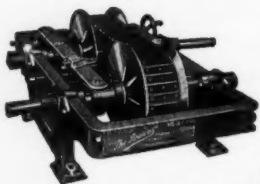
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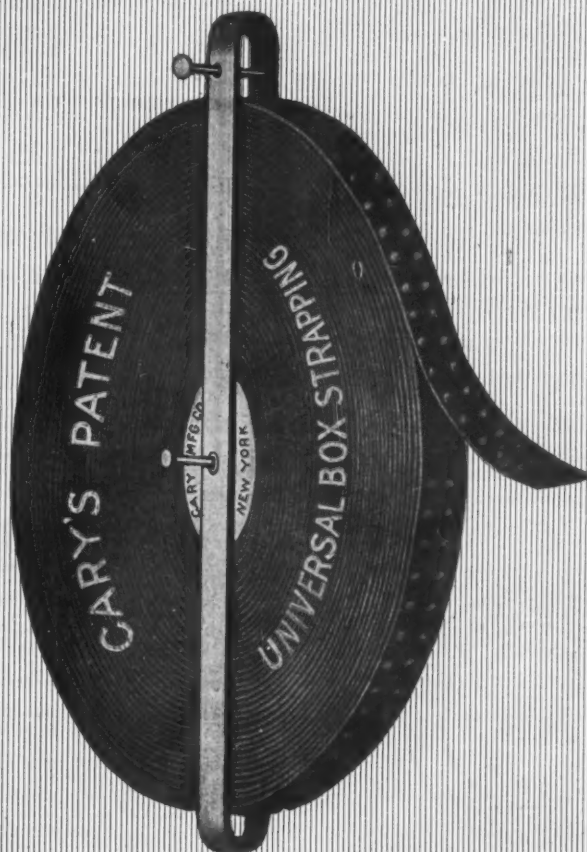
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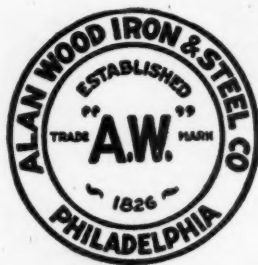
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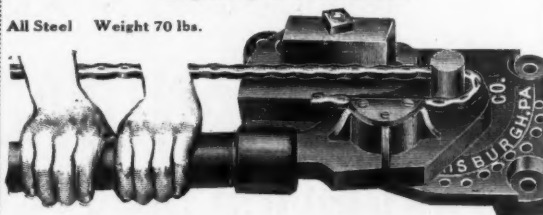


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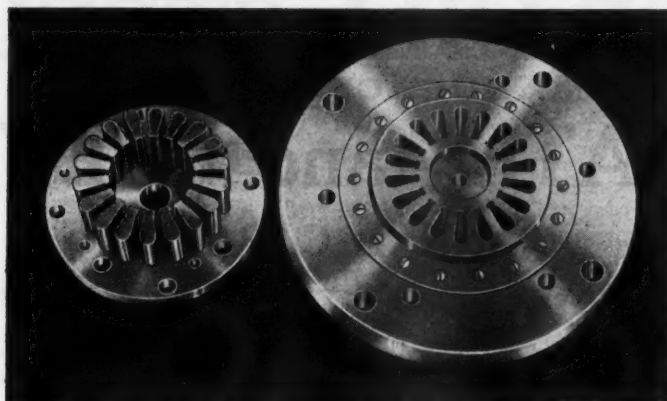
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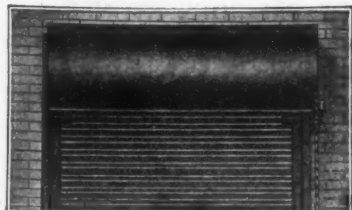
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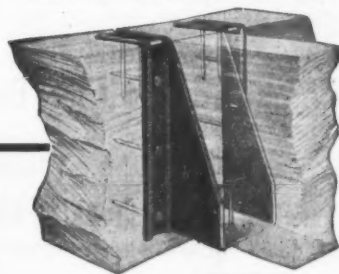
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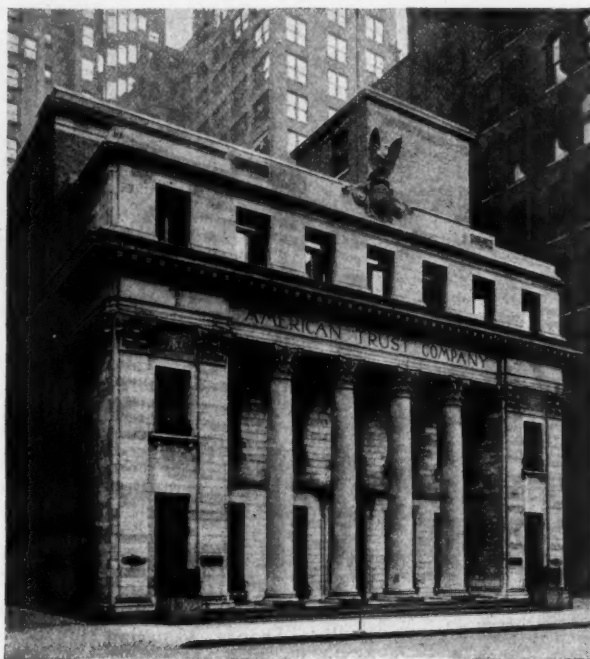
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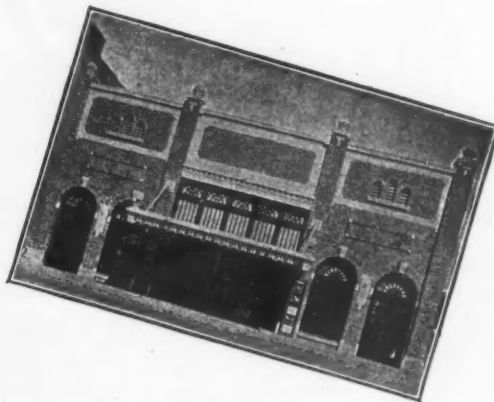
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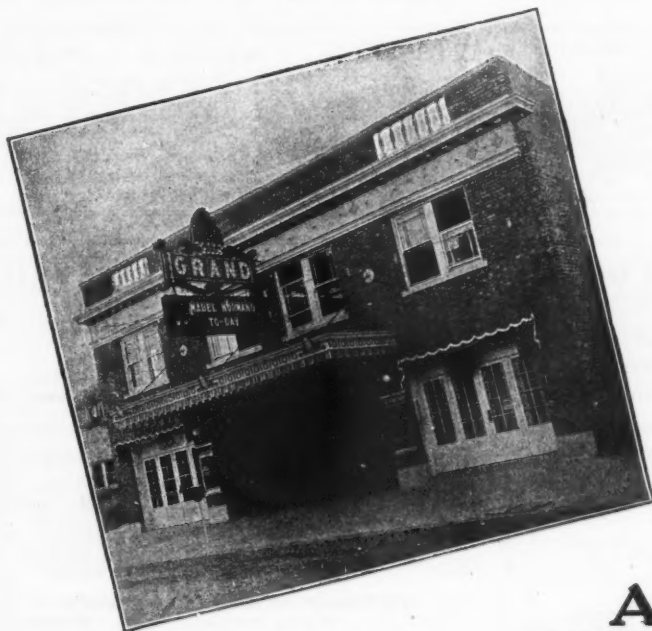
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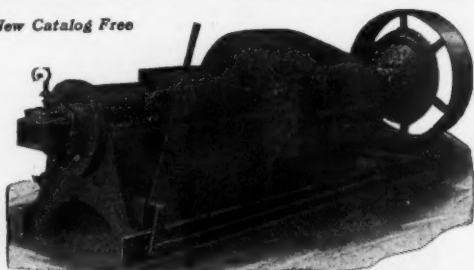
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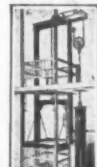
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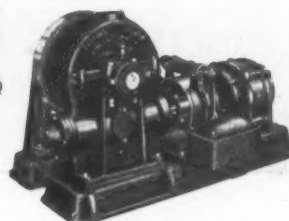
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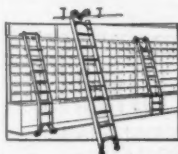
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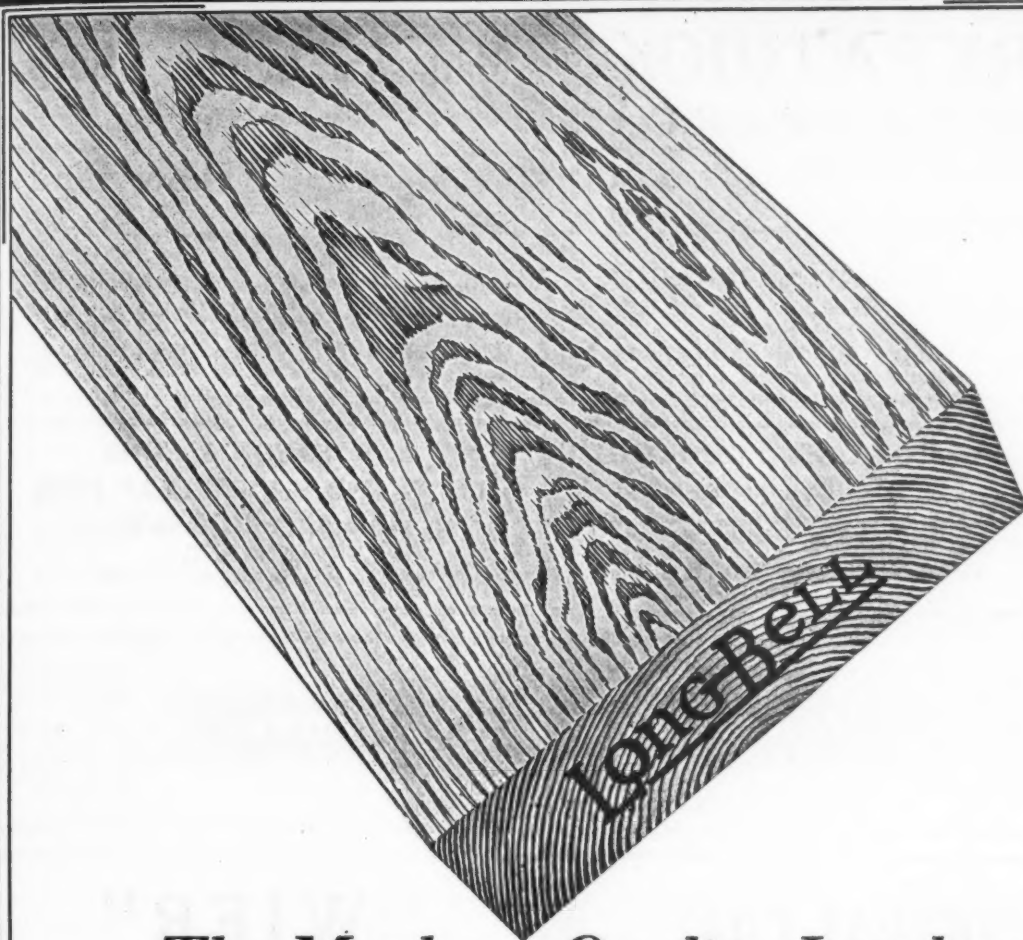
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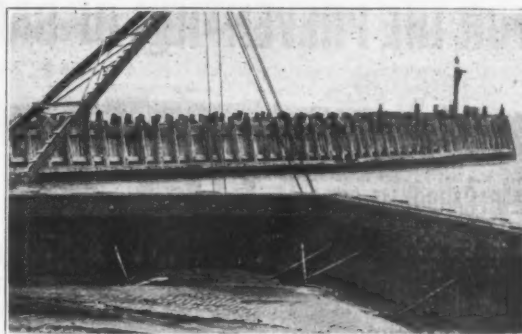
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THE COST IS NOMINAL. NO EXPENSE FOR KILNS. NO FIRE RISK.
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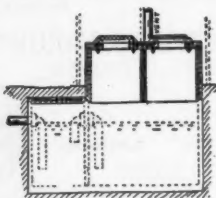
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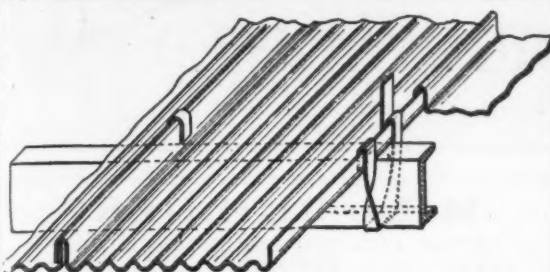
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Made to specified tensile or transverse strength
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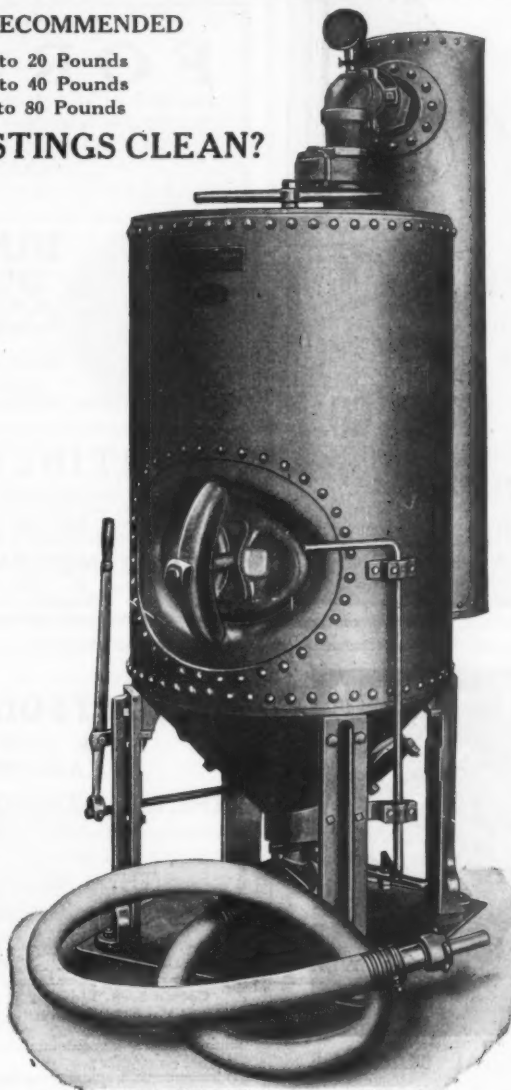
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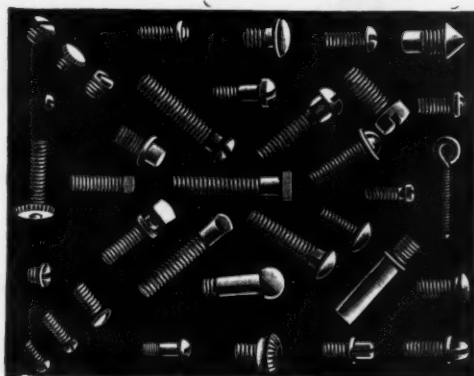
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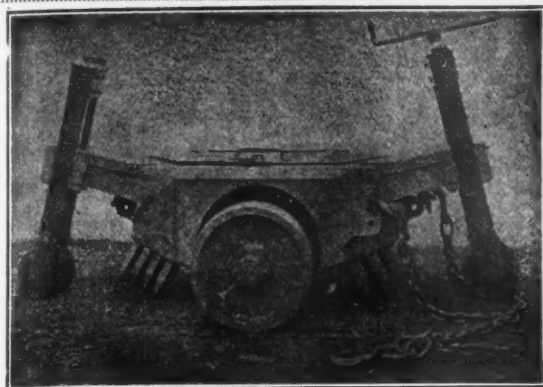
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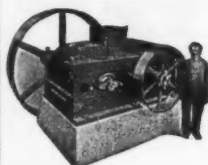
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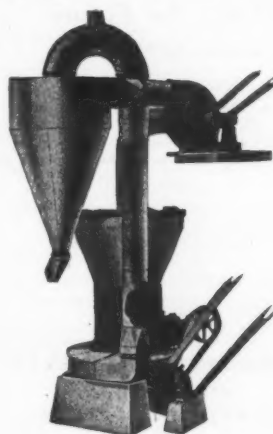
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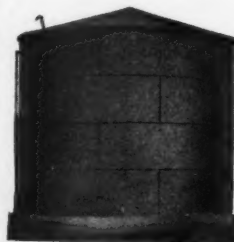
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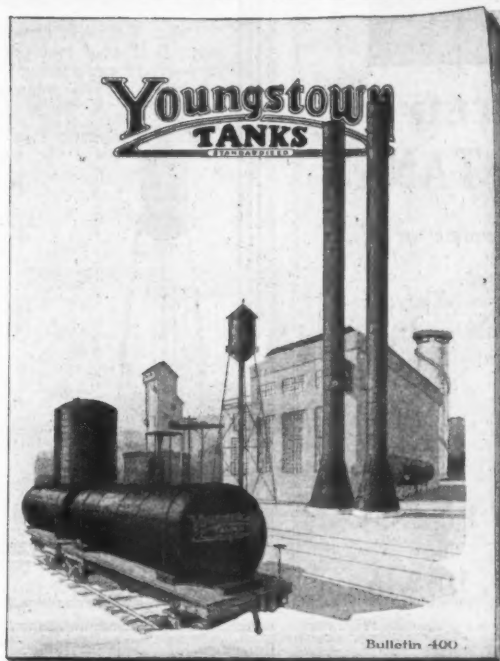
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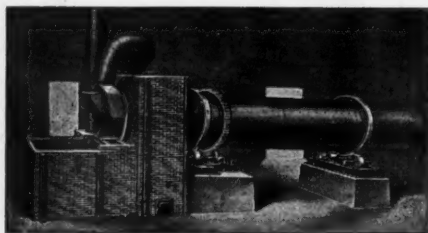
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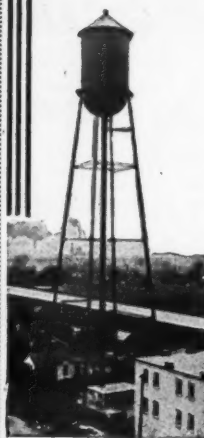
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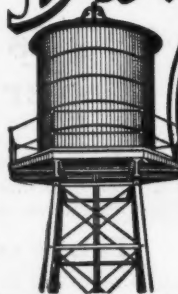
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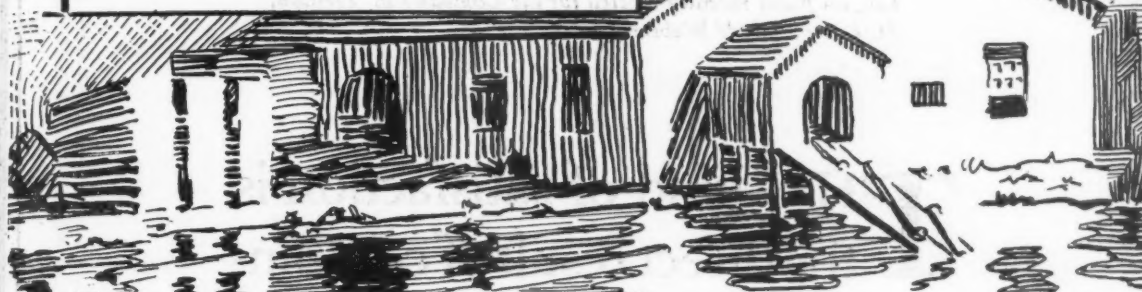


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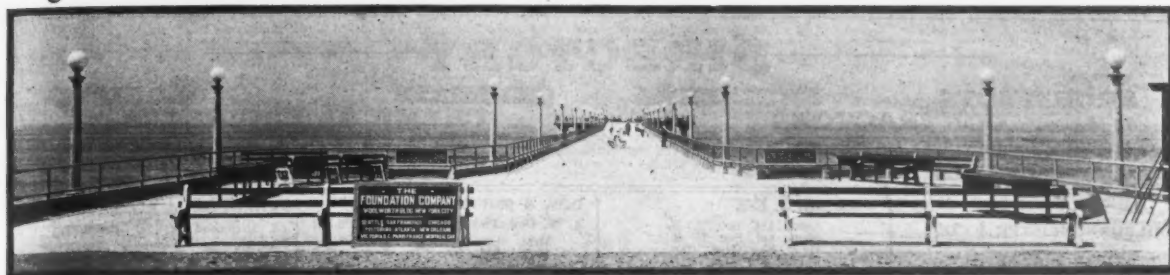
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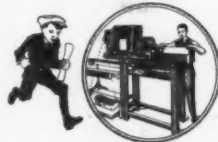
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Volume LXXX

Table of Contents

Number 12

Amazing Waste of Public Money in Increase of Salaries to Officers and Employees of New York Federal Reserve Bank. Cover Page

EDITORIALS 55-60

Lower Railroad Rates Will Come, Voluntarily or By Force—Which Do the Railroad Managers Prefer?

Some Startling Facts.

Lower Freight Rates on Highway Materials Would Stimulate Business.

San Antonio Undaunted by Disaster.

Let the Obregon Government be Recognized Immediately!

As Viewed by Differing Minds.

The World Facing a Cotton Famine, and its Meaning.

Lower Freight Rates Demanded.

Prosperity is A-Coming.

Influence on the Business Interests of the Country on the Advance in the Price of Cotton.

Short Cotton Crop in Egypt.

A Correction.

NEWS ARTICLES

- The Facts Regarding Deflation of Credit to Business and Agricultural Interests. An Amazing Revelation of Financial Incompetence or Mismanagement By John Skelton Williams 61
- An Optimistic Story from Birmingham..... 65
- Gusher Wells of High Grade Oil Bring Mexia Field of Texas to Forefront in Interest and Importance 66
- Importation of Mica from India Strangles Domestic Production 66
- Why Further Withhold Recognition of Mexico?..... By W. K. Whipple 67
- America's Progress in Chemical Industry Revealed at Seventh National Exposition.. By Herschel Brickell 69
- Amazing Industrial Expansion of Carolinas Exemplified at Charlotte Exposition.. By Howard L. Clark 71
- Railroad Managers Should See Importance of Lower Rates..... By John W. Sibley 92

DEPARTMENTS

- | | | | |
|---|----|-----------------------------------|----|
| Construction Department | 73 | New Securities | 88 |
| Machinery, Proposals and Supplies Wanted | 86 | Trade Literature | 90 |
| New Financial Corporations | 88 | Industrial News of Interest | 94 |

PUBLISHED EVERY THURSDAY BY THE

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Branch Offices: New York, 30 Church St.; Chicago, 11 South La Salle St.; Boston, 724 Old South Bldg.; St. Louis, 915 Olive St.; Washington, Whaley-Eaton Service, 456-459 Munsey Building.

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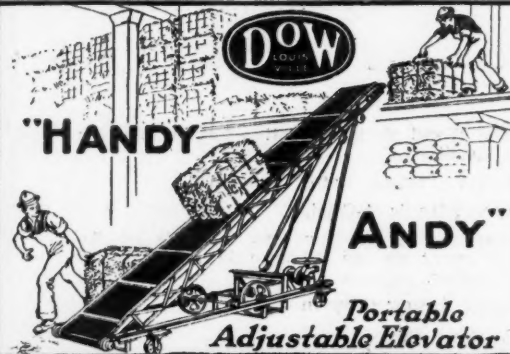
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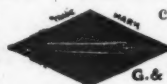
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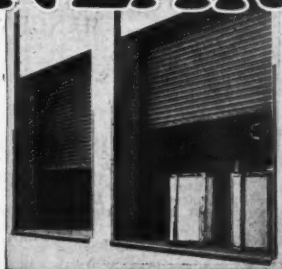
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Vol. LXXX, No. 12
WEEKLY.

BALTIMORE, SEPTEMBER 22, 1921.

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MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Cor. Commerce and Water Sts.,
BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President
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LOWER RAILROAD RATES WILL COME, VOLUNTARILY OR BY FORCE—WHICH DO THE RAILROAD MANAGERS PREFER?

THE transportation facilities of the country are wholly unequal to the demand which will come upon them whenever freight rates have been adequately reduced and business once more resumes its wonted activity. If railroad managers are wise enough to promptly bring about a general decrease in freight and passenger rates, which will be forced upon them if they do not voluntarily take the lead and do it themselves, they will soon find every locomotive and every car working to full capacity and they will have business enough to justify crowding every car shop and every locomotive plant with new orders. The utmost producing capacity of all the locomotives and car plants in the country is not equal to supplying locomotives and cars that will be needed whenever the railroads are in financial shape to order the rolling stock, without which they cannot possibly handle the rise of business just ahead of us.

It is essentially important that far-seeing railroad managers who appreciate these facts shall lower their rates voluntarily, instead of waiting until public clamor compels them to lower them, and prepare at once for enlarged traffic. Railroad managers may rest absolutely certain that they will not be allowed to hold the present passenger and freight rates. If they care to invite a contest with the country they will find themselves absolutely overwhelmed by public sentiment and legislation will be invoked, which will prove disastrous to the roads and to the country. For the sake of the railroads and the country alike, for the good-will which should exist between the public and all transportation interests, we trust that such a contest will not be provoked by short-sightedness on the part of railroad managers, but we warn them that unless they act of their own accord the public will act,

and with even more power than it has ever used before. When once public sentiment is thoroughly aroused, as it is now being aroused to the injustice of railroad rates, there is no possible power which can stand against it. Moreover, the part of wisdom for railroad managers, viewing the subject from the welfare of their security holders, demands that they reduce their rates and thus increase volume of traffic and at the same time win public favor. They can win the public or they can arouse the bitter hatred of the public; the former would add to their prosperity, the latter would mean a vast destruction of values of railroad securities. If railroad managers are wise, they will promptly recognize the situation, even though they honestly believe that they cannot afford lower freight rates, and will test the question of freight rates and save themselves and save the situation.

If the railroads will make this move of their own volition, and do it promptly, it will be but a few months before every locomotive and car will be crowded to capacity, and the roads will be in a position to crowd every railroad material shop in the country with orders, which will keep them busy for twelve months or more to come.

SOME STARTLING FACTS

JOHN SKELTON WILLIAMS, former Comptroller of the Currency, at the request of Commerce and Finance, of New York, has prepared for that publication a clear and succinct statement in regard to the operations of the Federal Reserve Board and the Federal Reserve Banks, and we are publishing his letter simultaneously with Commerce and Finance as a matter of profound interest to every business man, professional man, whether he be preacher, teacher or lawyer, to every farmer, and to every laborer; for upon the question of a proper banking system depends the prosperity or the poverty of all the people, and ultimately the very life of the nation itself.

Mr. Williams charges that the funds of the Federal Reserve Banks were used extensively for speculative purposes in New York, and says that the records show that one of the banks borrowing most heavily from its reserve bank was lending to one borrower, who at that time was a director of the Federal Reserve Bank of New York, over \$5,000,000, including a dummy loan of over \$3,000,000, mostly on highly speculative securities, while farmers and the country banks were begging for relief and enduring enormous losses because of the credit restrictions of the Reserve System. He shows that in September, 1920, the Reserve System was lending to the 45 national banks in the three big cities of New York, Chicago and St. Louis, more than the system was lending at the same time to the 7,673 country banks in all the forty-eight states of the Union. The New York Reserve Bank, he says, was about January 1, 1920, lending an amount nearly six times its own capital to one member institution conspicuous for its speculative operations and act-

ivities. This one borrower, he says, was thus getting nearly twice as much from the Reserve System as the aggregate amount of loans and discounts which the Federal Reserve Bank of Dallas at that time was lending to all of its member banks in its great district, including Texas and parts of Louisiana, Oklahoma, New Mexico and Arizona.

The facts given by Mr. Williams, taken from the official records, confirm beyond the possibility of a question every statement which the MANUFACTURERS RECORD has made during the long fight of the last two years in which we have sought to arouse the country to the certainty of business chaos if the methods which were being pursued by the Federal Reserve Board and the branch banks were permitted to continue.

We do not believe that there are any seven men on the face of the earth good enough and wise enough to hold within their hands—without reference to any one else, without any privilege of the public knowing what they propose to do—the absolute power to inflate or deflate the business interests of the country; for this means the right to curtail or expand credit, to cut the throat of business or to feed business, in exact accord with what these seven men may in secret decide to do. Indeed, so far as the public can learn, two men completely dominated this situation, and the constant protest of Mr. Williams against their methods proved utterly unavailing.

We ask every reader of the MANUFACTURERS RECORD to study thoughtfully the facts presented by Mr. Williams; for in these facts can be learned the reason for the fearful depression which during the eighteen months brought about a decline in the value of farm, factory and mine products and securities of upwards of thirty billion dollars, forever wiped out, without one redeeming thing on the other side of the ledger.

LOWER FREIGHT RATES ON HIGHWAY MATERIALS WOULD STIMULATE BUSINESS.

IT is claimed that no less than \$18,000,000,000 has gone into the purchase of tax-free municipal and state bonds in recent years. Where has the money gone? A summary of sums authorized will show, we believe, that not less than \$1,000,000,000 is at the present time authorized for road construction and is unexpended.

A large part of it is unexpended because the railroads last summer prevented road construction by declining to furnish cars for the transport of materials. The priority orders of the Interstate Commerce Commission played havoc. Thereafter, the rate increases went into effect and they have proved to be almost as disastrous as were the priority orders. Highway authorities simply declined to spend the money of tax-payers, voted for road improvements, on unwarrantable freight charges.

The roads have now voluntarily reduced the rates in Eastern territory. They claim the reduction amounts to 27 per cent, but shippers of materials compute it at 18 per cent. The reduction affects the States of Pennsylvania, New Jersey, Delaware, Maryland, Virginia and West Virginia. It does not affect any of the States where road construction during the winter months is feasible. In other words, the reduction will scarcely be of substantial advantage this year. Its good results will not be apparent until next spring.

It must be perfectly obvious, however, to the authorities in Washington who are concerned about unemployment that the vast amounts available for highway construction or other public improvement constitute the key to the situation. The expenditure of \$1,000,000,000 would transmute depression into prosperity. The money as it percolated through the population would multiply itself five times, at least.

Some of the leading railway executives of the country

are on record as having supported the theory, last summer, that it was unwise to let highway construction materials move at that time, since a period of depression was on the way, and the solution of unemployment at that time would be the undertaking of vast public improvements. The unemployment has come and the money is authorized for the public improvements.

The Unemployment Conference at Washington, therefore, in addition to any other recommendations it may make, should propose:

1. That the railroads voluntarily immediately put into effect such rate reductions as will stimulate road construction in all parts of the country where road-building during the winter is feasible.

2. That the railroads should, with the consent of the Interstate Commerce Commission, or by such other authority as may be required, grant preferential rates for materials of all sorts when such materials are paid for by the public funds and used in the construction of public improvements of any sort.

The effect of preferential rates, as suggested, would be to bring vast sums into the market at once, since the municipalities and other public agencies having funds at their disposal, knowing that the preferential rates would last but a limited period, would rush through their orders, thus freeing millions of dollars now idle and putting producers in a position to go ahead with further production. It would be sound public policy, fully justified by the emergency. Moreover, it would be beneficial to the railroads themselves, for their acceptance of the proposal would assure passage by Congress of the funding bill and would likewise assure the return to service of the thousands of freight cars now idle. Time is the essence of the earning power of a freight car. A day lost it can never regain. Idle cars do not produce dividends, but busy cars do.

Great national problems, especially when so exigent as that of unemployment, must be attacked by big men in a big way and the small-fry gentlemen with their pigmy obstacles must be swept aside. The nation is tired of wordy conferences in which nothing is accomplished. Let the Unemployment Conference really prove itself by the adoption of a brave and wholesome program such as outlined.

SAN ANTONIO UNDAUNTED BY DISASTER.

SAN ANTONIO has the sympathy of the world in the flood disaster with which the city was recently overtaken. Against a cloudburst no provision can avail, and when the usually placid river of San Antonio, that so picturesquely winds its way through the very heart of the city, was suddenly overwhelmed with a veritable wall of water from the deluged highlands, the people and the property in the lower reaches were wholly at the mercy of the elements. The loss of life was distressingly large, a hundred or more of those living in the humble cottages along the river banks having been swept with their houses to destruction. The property loss will run into the millions, and street paving and other facilities will require time for replacement. But the people of San Antonio courageously announced that they would take care of their needy and stricken people and would meet the loss of property without the aid of those outside. So with sympathy must go congratulations on the spirit that calamity leaves undaunted.

San Antonio is a gem among Southern cities, a place of great charm to the visitor and the stranger, a spot holding the reverent regard of all, Texans and others, who remember the Alamo, and in latter years a city of enterprise and vigorous industrial and commercial development. No storms nor stress ever have dismayed her, and whatever temporary disaster may visit her, the world may safely count that with unbroken spirit and confidence unimpaired. San Antonio will emerge, now and always, greater, stronger and even more certain of a glorious destiny.

Let the Obregon Government Be Recognized Immediately!

THE leading oil men in the United States have recently visited the capital of Mexico and arranged with the proper officials there a *modus vivendi* that is acceptable. Judge Gary, an outstanding figure in American industry, is in Mexico. Mr. Lamont, a foremost financier, has gone to Mexico to arrange for the funding of the Mexican external debt. Mr. Vaulain, head of the great Baldwin Locomotive Works, has lately returned from Mexico, where he did business on a large scale and reported conditions to be excellent. There are in Mexico today literally thousands of progressive American business men, who have confidence in the sincerity of the Obregon Government and in its ability to maintain order. Texas, which knows Mexican conditions in all their varied ramifications, is almost a unit in demanding that the Obregon Government be accorded, as is its due, the formal recognition that is the seal of friendship.

This fact stands out and no man can deny it: The intelligent business world of the United States has already recognized the existing Mexican Government. Business intelligence has moved ahead of official reticence, and business intelligence, in this case, represents definite public sentiment.

The Mexican policy of the American Government for a decade has been a humiliation and a reproach. The nation south of us is a great nation. It is as if Providence had picked it out as the blooming fruition of nature's promise. It is rich beyond the dream of man in all natural resources. It is in itself a mineral kingdom. And linked in wedlock to the marvelous riches of the mountains are lands so fertile that nowhere else on earth can better be found. The seas embrace it. Its climate is equable and health-giving. The romance of its past is but the setting for its romance of the future, the romance of accomplishment, the romance of business enterprise that shall transmute the undeveloped resources into evidences of service for mankind.

In its highest classes, Mexico can challenge without fear comparison with the people of any other nation. They have a culture that is soft and noble, similar to that created in our own Southern States in the plantation era before the war. The great masses are ignorant. Centuries of oppression have crowded in their brains. There had been a mixture of bloods, an interbreeding which has aided in producing a certain type of inertia. But such a condition is not one to fill us with contempt. It is rather to challenge our good purposes. There is an undeveloped relative at our very door who puts to shame our pretenses of helpfulness to the backward nations of Europe and Asia, on whom in wanton largess we have poured our sympathy. We have a problem next door to solve, and well may we blush until it is solved.

What does this policy of "watchful waiting" mean? He gives twice who gives quickly. Mexico needs our moral help and our material help in the days of her extremity, not in the hour of her triumph. Are we to watch unceasingly, without a helping hand, to see if she can climb the mountain side, when our helpfulness, beyond all question, would make her ascent sure?

It was ten years after our own Civil War, and more, before Federal troops were recalled from the South, and the press in all that time, was filled with stories, mostly untrue, of lawlessness in the South. Mexico has been through an era of rebellions at least as devastating, relatively, as was our own great conflict. She has emerged from them with a strong man in the saddle, a man who has proved his worth in the field and in the forum over and over again. He is seated in authority by formal popular vote. He has surrounded himself with statesmen of ability. He has, in a few short months, gone far in the promotion of reform. He has a definite educational policy. He is spreading democracy as

rapidly as it can be assimilated by pursuing a wise policy of land distribution, returning to the peasants, or granting them for the first time, a vested ownership in their own country. He has shown a real regard for the rights of private property and vested capital. He has, in a word, more nearly met the requirements of one of the most difficult situations in the world, than has any other man since Diaz—and Diaz, with all his faults, was all but making Mexico one of the great nations of the earth. There is no taint of murder on Obregon's hands. He has not moved into the chief magistracy by stealth and intrigue, wading through blood, but his whole record is one of decent planning and decent fighting.

It is not for us to question the wisdom of domestic policies Obregon may pursue, save as they affect vital rights of our own citizens, legally obtained. President Obregon is right if he denied the right of the Washington Government to dictate his programs. Let him be praised for it rather than blamed. The two nations will grow in friendship and in mutual regard not by the assumption of tutelage on the part of the one, but in free and independent action on the part of each.

Who, if not Obregon? He is constitutionally seated. He can be ousted only by death or rebellion. In case of the latter, another dreary wait of years would inevitably follow, while our Government watched to see if the new power suited. Another ten years of "watchful waiting" and then another! Heaven forbid! But Obregon, if recognized, is certain to serve his appointed time, barring death; and even if he died, after recognition, his associates, in such circumstances, could and would carry on an acceptable Government. Non-recognition of him by the United States is a standing invitation to the disaffected, the greedy, the rebellious, to stir up new trouble.

For moral reasons we ought to be Obregon's best friend. We should be supplying our sister Republic to the South with teachers, advisors, technical men, capital and all the paraphernalia of moral and material development. Yet quite aside from moral considerations and if guided by the hardest sort of business principles, it behooves us from the material viewpoint alone to open up the vast resources of Mexico and unlock the gates that bar our mutual trade. Even now Mexico is buying from us \$200,000,000 worth a year. It is stupidity at the pinnacle to send our billions of credit into the far and bankrupt parts of the earth while neglecting to extend to so vastly potential a market as Mexico even so poor a compliment as formal recognition. We who can weep bitter tears over mushroom nations of Europe, created by edict in furtherance of purely political pursuits, apparently believe that Mexico is simply a land of murderers and horse thieves, unworthy of our serious consideration. We commend to citizens who have such thoughts the course that Obregon took in connection with the wantonness that flourished at the race track below San Diego and compare it with the attitude of our own civilized authorities.

Mexico is one of the least debt-burdened nations on earth. She is a veritable trade colossus, needing only to have breathed into her the breath of industrial life. In all respects her future is secure, save, perhaps, in government alone, and we, in all our glory and might, fail to give her the help she requires in that one feature, namely, sincere aid in stabilizing government—moral aid.

The editor of this newspaper visited Mexico a year or so before the fall of Diaz. The clean streets of the capitol would have put to shame the highways of Baltimore. There were stores there of which any American city, or any city in the world, would have been proud. The business men were alert, enterprising and aggressive. Mexicans must laugh—perhaps bitterly—when they see what a peculiar idea of Mexico most Americans have.

It is no credit to us that Mexico has had bad government. True, there has been for years a saturnalia of graft in the provinces and elsewhere. True, there has been petty and great tyranny. True, there have been abuses of all sorts. But that is only the greater reason why we should seize the present opportunity to assist Obregon in his problem of overcoming these defects. A proper helpfulness on our part would surely enable the whole of Mexico to show during the next hundred years a truly marvellous advance in governmental operation.

We have nothing but contempt for certain greedy interests in America that have pursued for years and are pursuing now a campaign of calumny against Mexico. Some demand, as the price of our recognition of Mexico, the granting to them of special rights and privileges involving a substantial surrender of Mexican sovereign rights. We hope she never surrenders them. Others—fortunately a mere handful—dream of conquest and believe that an issue can be forced which will carry the American flag to Panama. Poor patriots they are. Such an event would be bad for Mexico and worse for the United States.

We believe that the time has come for the people of the United States to demand that their Government break loose entirely from the policy of "watchful waiting," that it cease its pitiable and puerile Mexican program and come out into the open and adopt once and for all a strong and decent policy of helping our sister Republic, and not in a patronizing way. The moment is ripe, ripe to the hour, for positive action. This in itself would help to revive confidence in business and start anew the functioning of trade, for Mexico is a veritable El Dorado of adventure, well described once "as the most highly mineralized region on earth." Its cities are prosperous and orderly, and its business interests are expanding, as our special correspondent so graphically outlines in this issue.

The Obregon Government should be recognized.

AS VIEWED BY DIFFERING MINDS.

BUSINESS life is controlled by the supply of credit just as much as physical life is controlled by the food supply. If a small group of men had the power to increase or decrease at their will the nourishment furnished to every man and woman in the country, their power would then be akin to that of the Federal Reserve Board, which has the power to inflate or deflate, to bring prosperity or poverty, employment or unemployment, and thus to completely dominate the business life, and ultimately that means the physical life, of every man, woman and child in the land.

It is for these reasons that we have discussed the Federal Reserve Board as one of the most vital factors in the very existence of this country.

Another influence which is at work is that represented in the labor situation and as to whether union labor shall absolutely dominate the entire country or whether free men not members of labor unions shall have the right of employment, uncontrolled by the rules and regulations and domination of radical labor leaders.

A vast majority of our readers seem to believe that the discussion of these questions is vitally important to the welfare of the country; but we have recently received two letters indicating that at least two of our former subscribers do not look upon these issues in that way. For instance, Mr. J. R. Copland of the Dan River Cotton Mills, Danville, Va., writing under date of August 30 said:

"I will not subscribe for your paper any more, until your Editor can think of something else to write about except Woodrow Wilson, Federal Reserve Banks and the party that has been in power for eight years, and labor unions.

"Now I am not a Democrat any more than I am a Republican, for I have voted both ways, neither am I a union man, but you just simply disgust me."

We presume that Mr. Copland did not mean "the party that

has been in power for eight years," but the party that *was* in power for eight years, for the Democrats are not now in power. We do not know his views on the right of labor unions to dominate the country, but we do know that on that point he expressed with emphasis the view that we simply disgusted him.

The other letter from a former subscriber who has discontinued his subscription because of our criticisms of the Federal Reserve system and our effort to find a way to bring about a better banking method is from Mr. Raymond E. Rutherford of Mt. Vernon, Ill., who writes under the same date as follows:

"I am not interested in keeping up my subscription to the RECORD.

"Your continued attack on the Federal Reserve System is entirely out of keeping with the otherwise excellent material in your magazine."

On the other hand three letters written on the same date, August 30, and others on different dates are interesting as showing the other side of the case. Mr. Geo. H. Cox, Secretary-Manager of the Chamber of Commerce of Troy, Ala., under date of August 30 said:

"Nothing gives us more pleasure than to forward our check for \$6.50 in payment of our subscription to your excellent paper. It is indispensable, and we heartily approve the patriotic and forceful manner in which you are defending our American institutions and fighting for the inalienable rights of the people."

Writing on the same date, Mr. T. R. Corr of Supply, Okla., says:

"The reading of the RECORD has been both instructive and inspirational to me. Your RECORD is a hammer of righteousness. I enjoy seeing the chips fly from the rock of selfishness under the blows you give."

And Mr. C. E. Robertson, Secretary of the Atlanta Chamber of Commerce, also writing under that date, paid his tribute to the MANUFACTURERS RECORD and its work in the following words:

"We are of course renewing our subscription to the MANUFACTURERS RECORD. It is a publication which we could not possibly do without.

"Just so long as it continues to blaze a trail to the American commercial and civic development, it will commend itself to the forward thinking people of the entire country."

Mr. A. D. Reynolds of Bristol, Tenn., who has been a subscriber for many years expresses his views on the work of this paper as follows:

"Enclosed I hand you my check for \$6.50 for another year on my life time subscription to your splendid journal. You stand for so much that is good and noble we ought not to complain if we do not agree with you on everything. I never had much respect for a straddler. I have just passed my seventy-fourth birthday. Often I walk to my church over a mile for exercise. Long may your editor live as an exponent of righteousness and justice to all.

"I see Chattanooga, Tenn., has invited the Confederate Veterans to hold their reunion next month and we have accepted. I was commissioned as a Captain in the Civil war when a few months over sixteen, having served as a cadet at the V. M. I., preparing for the war."

Mr. J. Freeman Williams, President of the Woodstock Manufacturing Co., of Charleston, S. C., agrees with Mr. Reynolds in emphatic appreciation of the work of this paper and in renewing his subscription said:

"I have been a constant reader of the MANUFACTURERS RECORD for years, and would not be without it under any consideration. I consider it the best publication coming to my office, and wish you continued success in the good work you are doing."

We do not expect every reader of the MANUFACTURERS RECORD to agree with every position we take, but we shall continue to express our honest convictions and patiently await the verdict of time.

Mr. C. E. Reick, president of the American Peanut Products Company, Waverly, Va., writes:

"We have tried to get along through these trying times without the MANUFACTURERS RECORD coming to us, and the void on our desk is so great that we are therefore filling in

your most liberal subscription memorandum and will retrench in another direction in order that we may have the pleasure of its weekly visitation upon us."

A good many other people have found that whatever curtailment was necessary in their expenditures they could not afford to curtail to the extent of discontinuing their subscription to the MANUFACTURERS RECORD, for they realize that every issue is of greater value to thinking business men than the annual cost. We suggest to all our readers that they study the cover page of this issue and other vitally important facts which they will find in these pages, and ask themselves if the information thus gathered is not vitally important to the welfare of the entire country.

Mr George F. Willis, secretary-treasurer of the Curtiss-Willis Co., Inc., chemical and mechanical equipment, New York, writing under date of September 9, made some statements which should be carefully pondered by all other business men. In his letter he said:

"We are glad to say that through the influence of your journal and the fact that we advertised during the whole summer, in spite of the universal depression in business, it is now bringing us in some nice orders."

THE WORLD FACING A COTTON FAMINE, AND ITS MEANING.

NOT since the Civil War period, when hundreds of thousands of people were idle in Lancashire because of the inability to buy cotton from the South, and when the desperate situation then almost forced the British Government to recognize the Confederacy in order to get cotton, has there been the certainty of such a world shortage as we are now facing.

The new crop is likely to fall below 7,000,000 bales, for it has been steadily deteriorating during the last three or four months. Adding the new crop to the supply brought over from former years will hardly give us of spinnable cotton enough to meet the world's actual requirements.

It is impossible to spin down to the last bale, and, therefore, all mills in this and other countries must of necessity always have some stock on hand and some in process of manufacture.

The actual amount required, therefore, will almost certainly exceed the available supply, and the world will go into the next crop shorter of cotton than it has been at any time since 1865 and 1866. This shortage cannot be made up for a number of years. The ravages of the boll weevil make it impossible for the South to raise a large crop for some years to come. This section cannot possibly, regardless of the price to which cotton may go, plant and cultivate an acreage large enough to give a big yield while the boll weevil holds sway, and there is no remedy yet in sight for the ravages of the weevil.

Moreover, the South is learning that in diversification of agriculture there is more prosperity for the individual farmer and for the South as a whole than would be in cotton at any price, and a large proportion of Southern farmers will never again concentrate all of their energies upon cotton growing. They have this year had a lesson which for a generation we have been trying to hammer into the South, viz.: that the most uneconomic and wasteful thing the Southern farmer could possibly do was to raise a crop of sufficient size to give the cotton bears of the world the whip handle. The South has learned that a seven million bale crop at twenty cents or more per pound, (and it ought to go much higher), will be worth vastly more to this section than a twelve million bale crop at ten cents a pound.

It is, therefore, incumbent upon every well-wisher of the South, banker, merchant and manufacturer, and land owner as well, to do all in their power to encourage diversified farming, to insist that the small land owner and tenant farmer shall have no lien crop credit at banks or at stores unless

they raise sufficient foodstuffs for their family needs, for credit on any other basis would be an injury to the borrower.

The lesson which has been learned will be of incalculable value to the South if, regardless of the price to which cotton may go, this section continues to concentrate its energies upon living at home instead of having "its smokehouse and corncrib in the West." The South ought not to have to buy a pound of Western bacon or Western corn. It ought to provide the feedstuffs and foodstuffs for itself and have a surplus for shipment elsewhere.

Cotton is a curse, has been and ever will be, to the South except it be raised as a surplus crop, giving only such acreage to cotton as can be properly cultivated after putting in a sufficient acreage for food and feed supplies. The acreage that is put in cotton should be heavily fertilized, but this acreage should be smaller next year than it has been this year. An acreage of 15,000,000 to 20,000,000 would be ample for the South if properly fertilized and intensely cultivated. The yield per acre would be larger, the cost less and the profit greater. But even this acreage would be too large unless the South can in addition thereto carry on the diversification of agriculture to a sufficient extent to produce its own grain and meats.

It behooves the bankers and the merchants who are in touch with the farm people of the South to begin an immediate intensive and aggressive campaign for increasing food production, and for still further lessening the cotton acreage; and at the same time insisting upon more intensive fertilization and cultivation of the acreage put into cotton and other crops. This way will lead to universal prosperity for the agricultural and all the business interests of the South. Any return to the system of concentrating attention upon cotton to the exclusion of foodstuffs would prove an unspeakable curse to this section and make cotton the lodestone around the neck of Southern industry and Southern agriculture which has held the tenant farmers of this section in economic slavery for so many years.

LOWER FREIGHT RATES DEMANDED

MR. G. W. BOOTH, of the Hackley, Morrison Co., Richmond, Va., in the course of a letter to the MANUFACTURERS RECORD on the railroad freight rate question, writes as follows:

"To tell the truth, we do not feel that there will be any material improvement in the used machinery line until freight rates are brought down to a level about as they were prior to the increase of Aug. 25, 1920, which increase was entirely uncalled for, unnecessary, and which has profited neither the railroads nor the public, for the loss of traffic and the confusion of the accounting and rate departments more than absorbed the rate increases, and this the writer knows well for he was in the over and under charge department of a western railway at the time of the increase and for six months thereafter."

A SLIM CHANCE.

HON. E. J. SENTER, formerly member of the Texas legislature and now editor of *Dixie*, published at Arlington, Texas, referring to the work of the Federal Reserve Board, writes:

"The people are becoming educated on this subject. Eight candidates have already announced for United States senator to succeed Senator Culberson. They are fighting shy of this subject, but will not be permitted to ignore it. Any candidate who attempts to defend the policy of the Federal Reserve Board, or who offers no hope of betterment, will stand no more chance of winning than a stump-tailed bull has of getting away from summer flies in the Panhandle."

PROSPERITY IS A-COMING.

THE business tide has turned. Here and there are many evidences of marked improvement in business. Inflation, or advance, whichever one may prefer to call it, in the price of cotton is quickening the life blood of the South and stimulating many lines of business there and elsewhere. Reports from various parts of the South tell of wholesale houses being overcrowded with orders, some of them calling in their salesmen, because they cannot supply goods rapidly enough and others reporting an inability to secure from manufacturers supplies to meet immediate needs. The whole country is bare of basic materials, the shelves of country stores have been largely cleaned out, people generally have been buying less during the last eighteen months than for many years before, and hence the buying spirit whenever it moves as it is now being quickened by the rise in cotton, easily and rapidly spreads.

The power of money to change the situation over night is illustrated in a true story of an event which occurred at a dinner table in Baltimore. There were five or six people at the table, including members of the family and several boarders. The head of the table passed to one member of his family a five dollar note saying, "Here is that \$5 I borrowed from you." Scarcely had the second man received the money before another at the table spoke up and said, "You owe me \$5" and so the receiver passed the \$5 on to another and as a matter of fact that same five dollar note paid a \$5 indebtedness of five different people and finally came back to the head of the house and no one at the beginning knew that anybody else had borrowed from the others. It was an interesting and astonishing revelation of how money started out on its round pays first one debt and then another and cancels many obligations.

The \$500,000,000 of added wealth by reason of the increase in cotton price will pay many times \$500,000,000 of debts. Like the five dollar note at the dinner table it will pass from one to the other and be a revolving fund and finally some of it will come back to the very people who first received it. Measured by the work of the \$5 at the dinner table in paying five debts of \$5 each in that little group, the \$500,000,000 of wealth added to the value of cotton should be equal to at least \$2,500,000,000 in payment of debts and in the purchase of needed supplies of one kind and another, and possibly will far exceed even that sum.

INFLUENCE ON THE BUSINESS INTERESTS OF THE COUNTRY OF THE ADVANCE IN THE PRICE OF COTTON.

THAT the advance in the price of cotton is to mark the turning point in the business of the country and have a tremendous influence in stimulating all the ramified business interests of the United States, is now universally accepted among leading financial people. This point is emphasized in nearly every dispatch from Wall Street to the daily newspapers as illustrated in a Wall Street dispatch of September 5 to the Philadelphia Ledger in which it was said:

"One new development imparts an evidently powerful factor in the situation. This is the record rise in cotton prices and its inevitable repercussions elsewhere. It is doubtful if business sentiment has even begun to measure the results of this movement and its ramifications.

"On August 22, taking the New York October position as a basis, cotton was approximately 13 cents a pound. On Friday of last week it reached 18 cents, and there are few cotton men who do not believe it is destined to go still higher. This is a rise, roughly speaking, of \$25 a bale, and the South stands a good chance of realizing \$300,000,000 more for its present and prospective supply than was in prospect two weeks ago.

"Dry goods markets have been tremendously stimulated.

Yarns have risen 3 to 5 cents a pound almost overnight. Manufacturers, caught with high-priced raw material on hand before the slump of last year, will welcome the substantial expansion in inventory values.

"Wall Street is beginning to find that prices can go up as well as down, and that is a step toward a bull market."

Since the foregoing dispatch was written, the advance in cotton figures up to at least \$500,000,000.

Thus the South is to be the leader of the nation in bringing prosperity back to the country.

SHORT COTTON CROP IN EGYPT.

IN studying the cotton situation and the certainty of a famine in cotton which the world will face within the next twelve months, it may be worth while to read the following statement sent us by Frederick H. Anfres, Inc., dealers in Egyptian and other long staple cotton, of Boston, who give us the following report received from their correspondent at Alexandria, Egypt:

"We give below a list of the acreages under the various kinds of cotton which have been planted this year in Egypt.

"The figures are supplied by the Ministry of Agriculture and show a general reduction on last year's acreage of 29.3 per cent. The reduction for sakellarides amounts to 21.7 per cent and for uppers 38 per cent, but the greatest reduction is on the other varieties, for instance, only 21,250 feddans of brown having been planted this year compared with 111,430 feddans last year.

"Another remarkable feature of the list is the almost complete extinction of pillion, only 319 feddans having been sown this year. This is the cotton that was to have replaced sakellarides and become the principal crop of Egypt. Last year pillion was listed under "various." Zagora was also listed under "various." The total acreage in feddans was as follows: 1921, 1,291,878; 1920, 1,827,870; 1919, 1,573,662. One feddan is equal to 1.038 acres.

"By cable from Alexandria, September 12.—Market irregular, crop reports unfavorable. Alarming proportion bolls dropping, boll worms spreading. Private crop estimates average 3,750,000 cantars."

A CORRECTION

MR. FREDERICK SCHWARZ, manager of the American Brewer of New York, writes the MANUFACTURERS RECORD to the effect that an article which appeared in this paper March 10, referring to the Rhine Protest Meeting held in Madison Square Garden, stated that Otto Stiefel, a St. Louis brewer, was one of the speakers. Mr. Schwarz says that this is incorrect, as Mr. Otto Stiefel, the St. Louis brewer, had committed suicide several months before that meeting, and the Otto Stiefel who spoke at that time was another man living in New Jersey, and in no way connected with the brewing industry.

The MANUFACTURERS RECORD took its statement from the New York daily papers, but it accepts the report of Mr. Schwarz and at his request publishes the correction. Mr. Schwarz asks for this because he wishes to remove from the brewing interests the responsibility for the statements made by the other Mr. Stiefel, and possibly he is justified in this, for the brewery interests have sins enough to bear as it is. They maintained the saloons, the hotbeds of vice and crime; they sought to control legislation, and they did all in their power to corrupt the nation and to ruin for time and eternity millions of human beings.

A series of observations is being made in the brown iron ore district of Alabama for the purpose of determining definitely whether the dip compass can be relied upon in the location of ore deposits. A study of the method of mining and handling the ores of this district is also being made by the Southern Experiment Station.

The Facts Regarding Deflation of Credit to Business and Agricultural Interests.

AN AMAZING REVELATION OF FINANCIAL INCOMPETENCE OR MISMANAGEMENT.*

BY JOHN SKELTON WILLIAMS, Former Comptroller of Currency and Member of the Federal Reserve Board.

I thank you for the opportunity which your courteous invitation gives me to present to the country this statement concerning the status of the controversy between the Federal Reserve Board and certain Federal Reserve Banks on one side, and I think I can say the largest part of the public and myself on the other. The subject is of far-reaching importance to our whole nation, and the people are entitled to know the facts.

Those—if there are any such—who suppose that I am trying to punish or injure anybody or to weaken or assail the Federal Reserve System, or to destroy anything, misunderstand me and the conditions grotesquely. I have always tried to make my position clear on this point. In my address at Washington in April, I said:

"The theory, conception and purpose of the Federal Reserve System are as near perfection as the human mind can produce. * * But no machinery can operate successfully indefinitely without intelligent supervision and direction."

My plain purpose has been to expose the errors that have been made in the administration and use of the System and to demonstrate the consequences of them, that those errors may be avoided hereafter, the operations of the System perfected, and its great purposes fulfilled.

The most important of these purposes is to assure equable and equitable distribution of the money supply of the country that it may be available where and when needed for actual production and legitimate commercial purposes and not accumulated in places and for purposes where it is not needed for legitimate uses, or is misused either to extort inordinate gain from need or to promote speculation, destructive to some and adding nothing to the country's real growth and progress.

Fortunately, the facts and statements from both sides are of public record now, and will be printed in the proceedings of the Joint Committee of Congress investigating—especially from the standpoint of agriculture—the administration of the Federal Reserve System.

The record shows that a year ago, in September, 1920, when agricultural sections were earnestly pleading for addition help, the National banks of the three big cities of New York, Chicago and St. Louis had received accommodations (nearly all from the Federal Reserve Banks) through rediscounts and bills payable, to the extent of 24% of their total loans and rediscounts.

At the same time the National banks known as the "country banks," that is to say the banks outside of the Central Reserve cities, had received accommodations in the shape of rediscounts and bills payable for only 10% of their total loans and discounts.

If the "country" banks had been granted accommodations for the same proportion of their total assets (excluding rediscounts) as the National banks in the three big cities, they would have received at least \$1,630,000,000 instead of \$596,000,000 which was the total amount of all the "rediscounts and bills payable" which all the "country" National banks in the United States owed on September 8, 1920.

If that additional amount of credit of \$1,034,000,000, had been supplied to them up to that time, or during the ensuing twelve months, it is a fair assumption that our country might have been saved billions of the losses we have suffered, not only from shrinkage of values but from the violent and sudden

collapse, resulting in disturbance and disaster to producers, farmers and manufacturers, without compensation and corresponding advantage to consumers.

I will now submit certain official figures from the annual report of the Comptroller of the Currency, submitted to the Joint Committee of Congress by me on the 2nd and 3rd ultimo (Page 222 Comptroller's report for 1920).

Comparison of the loans and discounts and of money borrowed by rediscounts and bills payable on September 8, 1920, by the National banks of the three cities of New York, Chicago and St. Louis, as compared with the "country" National banks, that is to say, all National banks outside of the Central Reserve and Reserve cities.

	Total loans and discounts to all customers (including rediscounts)	Accommodation obtained by rediscounts and bills payable	Ratio money borrowed to total loans.
September 8, 1920			
New York, Chicago and St. Louis	\$3,695,000,000	\$896,000,000	24.2%
"Country" banks	5,853,000,000	596,000,000	10.2%

These figures show that although the "country" banks were carrying \$2,158,000,000 more of "loans and discounts" than the National banks in the three big cities, yet the accommodation which they had been able to get from the Federal Reserve Banks whose principal function is to extend aid in times of emergency and stress, was actually about \$300,000,000 less than the accommodation granted to the National Banks in the three big cities.*

*Nearly all the money borrowed by all National banks was obtained from the Federal Reserve banks, and in making this comparison, I am assuming that the proportion of their total borrowings obtained by the "country" banks from their Federal Reserve banks, was the same as the proportion of their total borrowings which the banks in the three big cities got from their Federal Reserve banks.

The official figures also prove that the accommodations obtained by the "country" banks (nearly all of which were gotten from the Federal Reserve banks) in September, 1920, were \$60,000,000 less than the accommodations obtained by the National banks in the three big cities, at the same time.

By September, 1920, the 45 National banks in New York, Chicago and St. Louis were being accommodated (nearly all from Reserve banks) with \$300,000,000 more than all the 7,673 "country" National banks throughout the United States.

Comptroller of the Currency Crissinger's official statements show that as late as April 28, 1921, the Federal Reserve System was still actually lending to the 45 national banks in New York, Chicago and St. Louis (over 96 per cent going to the banks in New York City and Chicago) on bills payable and rediscounts, in proportion to their total resources approximately twice as much as the System was lending at that time to all the "country" national banks, then aggregating 7.752

I appeal to the same record to furnish, if desired, further convincing proof of my charges against the Federal Reserve Board and some of the Federal Reserve banks, that the resources of the System were distributed unequally and improvidently, so that great banks at the financial centers were lavishly supplied with money for use as they saw fit, while "country" banks and their producing customers were cramped and crippled.

In my testimony before the Congressional Committee, I showed that four or five large banks in New York City were borrowing at one time from the Federal Reserve bank as much as four of five thousand banks, including both country banks and the larger banks in important Western and Southern cities, were borrowing from five Federal Reserve banks, embracing in their respective districts twenty-one great States.

The Federal Reserve official bulletin of December, 1920,

*This article, written at the request of Mr. Theodore H. Price, editor of Commerce and Finance of New York, is by permission published, simultaneously with its appearance in that paper.

throws light upon the extent to which the Federal Reserve banks were accommodating the agricultural interests of the country in crop moving time in 1920. Page 1346 of the bulletin referred to shows that at the end of October, 1920, the 12 Federal Reserve banks held of "discounted and of purchased paper" a grand total of \$3,100,000,000 of which the purchased paper was \$290,000,000, nearly all "bankers acceptances," it is understood mainly New York City banks. But of the aggregate of \$3,100,000,000 the total of "agricultural paper" and of "livestock paper" held by all the twelve Federal Reserve banks was only \$240,000,000 which is less than 8% of the total accommodations granted by the Federal Reserve banks.

The 8% of the total accommodations granted by the Reserve banks upon "agricultural and livestock paper" seems very small when we consider that the farmers now represent about 43% of our population and when the aggregate value of farm property, according to the last census, is about \$77,000,000,000.

From October, 1919 to October, 1920, between those particular dates, the twelve Federal Reserve banks did increase the amount of their discounts and bills payable with the member banks. The total increase in the average amount of all discounted paper held by the Federal Reserve banks in the twelve months from October, 1919 to October, 1920 was \$712,000,000. But an analysis shows that **72% of this increase**, or, say, \$512,000,000 was dispensed by the Federal Reserve banks of New York, Chicago and Cleveland, while the total increase granted in that period by the Federal Reserve banks to all member banks **in nine other great districts**, embracing over 90% of the total area of the continental United States was only \$200,000,000, or 28% of the total increase. 72% of the increase being dispensed by Reserve banks in three districts covering less than 10% of the territory.

The official figures also show that one time last year the Federal Reserve System was lending to four banking institutions in New York City an aggregate of about \$480,000,000.

The loans made to these four banks in New York City amounted to approximately **twice as much as the maximum amount loaned at any time during the year 1920 on "agricultural and livestock paper"** by all twelve Federal Reserve banks.

And yet in the face of these facts we find officials of the Federal Reserve System giving the most solemn assurances that the resources of the System have been equitably and impartially distributed.

In September and October, 1920, farm organizations and cotton growers, other business men and Senators and Congressmen, held repeated conferences with the Federal Reserve Board and pointed out the disastrous consequences of their policies and urged a relaxation of the pressure which was being exerted. I besought my colleagues to listen to the arguments which were so forcefully presented to them, and to revise their policies before it should be too late.

In a letter to the Governor of the Board of October 18, 1920, I said:

"The plans and policies which have aided in bringing about deflation in the great staple commodities **should be at once taken up for consideration and revised as far as may be necessary to meet present and changed conditions. If this is not done speedily, I am fearful as to the consequences which may ensue.**"

Three days later, in a letter to the Secretary of the Treasury, who was also the Chairman of the Federal Reserve Board, I said:

"The strain upon the business fabric of the country, is, in some respects unparalleled and I do feel that the **time has come for the exercise of such salutary and constructive powers as may be at our command.**"

"The situation ** has become more aggravated of late, and unless relief can be found an increase in bank failures, I believe, will be inevitable.

"The revival of the War Finance Corporation would provide,

in my judgment, a much-needed steadying influence at this time."

I continued to remonstrate against the Board's unwise policies, both in Board meetings and in written communications. In a letter to the Governor of the Board January 17, 1921, I said:

"It is entirely true that I wish to go on record * * I wish to be recorded definitely as having done my utmost to urge our Board to saving or palliative action and consideration for the troubles of the public and thereby at least free myself from the **censure that will fall on us with crushing force if we omit any possible effort to mitigate present and real suffering or to avert disaster**, although the consideration of personal exculpation is, of course, slight and negligible in comparison with my main purpose and hope, which are to obtain from the Board some prompt and effective action for relief."

I now ask your attention to the manner in which the Federal Reserve Board responded to the earnest pleas for relief and revision of their contraction policies which were made to them in September and October last. You will see that their answer was practically, more pressure, contraction, deflation!

On October 15, 1920, the total amount of bills discounted and paper purchased by all twelve Federal Reserve banks amounted to	\$3,092,000,000
By November, 1920, this amount had been contracted by	145,000,000
By December, 1920, the reduction as compared with October 15, 1920 amounted to	263,000,000
The Reserve System continuing to call in loans. By January 21, 1921, the total amount of discounts and purchased paper which the Reserve banks had outstanding had been reduced as compared with October 15 by	443,000,000
By February 18, 1921, this contraction amounted to	562,000,000
By March 18, 1921, the Board's policies had caused a reduction in discounted and bought paper amounting to	746,000,000
On April 29, 1921, the Board in reporting the complete success of the policy of deflation and contraction showed that the total amount of bills discounted and paper purchased had been reduced to which was an actual contraction since October 15, 1920 of	2,167,000,000
1920 of	925,000,000

During the 5½ months between November 17, 1920, and April 28, 1921, while the Reserve System was forcing member banks at ruinous costs to **pay up** or reduce their loans with the Reserve Banks by the sum of \$780,000,000, the withdrawals of deposits which the national banks alone had to meet, in that particular period, was \$2,110,000,000, in addition to the **shrinkage in deposits of \$905,000,000 which had already occurred**, during "deflation," in the 10½ months from January 1, 1920, to November 17, and the agricultural and business interests of the country had been dragged into the depths of the greatest depression this country has ever seen. The morning papers tell us that according to Government estimates about six million unemployed and hungry men and women are now walking the streets looking for work.

These may be ascribed as some of the results of the Federal Reserve Board's "successful" policies!

On January 1, 1920, the total deposits of all National banks in the United States amounted to	\$17,866,000,000
At the time of the call April 28, 1921, the total deposits of all National banks were	14,851,000,000
This shows the terrific shrinkage in sixteen months of	3,015,000,000
On January 2, 1920 the total amount of "rediscounted and purchased paper" held by the twelve Federal Reserve banks was	2,805,000,000
On April 28, 1921, the total amount of bills discounted and purchased paper held by all the twelve Federal Reserve banks was	2,167,000,000
These figures prove that in the "deflation" period from January 1, 1920 to April 28, 1921, the National banks of the United States were required to meet a withdrawal of deposits amounting to the huge sum of	3,015,000,000

The only means they had for meeting these huge withdrawals without drawing down their reserves was, first, by selling their Liberty Bonds and other securities, second, by enforcing the payment and collection of loans, third, by borrowing

money, practically the only source to look to being the Federal Reserve banks.

It was the purpose and theory of the framers of the Federal Reserve Act that in such a crisis as that through which we have passed the Reserve banks should aid by extending the needed credits and prevent the slaughter of Liberty bonds and other securities, and the wholesale calling in of loans. But we find here that during this precise period, the twelve Federal Reserve banks instead of increasing accommodations to enable the banks to meet the enormous withdrawals of deposits without forcing borrowers to the wall, and without exacting the payment of loans, not only refused to grant the increased accommodations so obviously needed, but called in their outstanding loans and discounts to the extent of \$638,000,000 between January 1, 1920 and April 28, 1921. These are cold historical facts which the Federal Reserve Board cannot deny or shake.

It should be noted that the withdrawals of deposits, to which I have referred, of \$3,015,000,000 applies only to the National banks. It is quite probable that the reduction in the deposits of State banks and Trust companies amount to as much again, making the total probable reduction to deposits in the period named about six billion dollars; and while this huge reduction in deposits was straining the banks the Federal Reserve System instead of easing the situation by at least refraining from calling in loans, actually contracted its advances to both National and State banks and Trust companies from \$2,805,000,000 in January, 1920, to \$2,167,000,000 in April, 1921.

I am told that a member of Congress recently described the attitude of the Federal Reserve Board succinctly as follows:

"If you accuse, the Board of having brought about this great debacle, the members deny that they are in any way responsible but if you congratulate the Board on having knocked the bottom out of the markets and on having raised the gold ratio to a point that is in itself a national scandal, they one and all take off their hats, bow solemnly and say: 'We thank you. We did it.'"

In two speeches, one on April 13, 1921, before the Peoples Reconstruction League at Washington, and the other at Augusta, Ga., on July 14, before the Board of Commerce, I made public certain facts in regard to the methods and policies of the Federal Reserve Board and the operations of the Federal Reserve banks which resulted in the prompt introduction in both Houses of Congress of resolutions calling for an investigation of the Federal Reserve Board.

The Board then got busy. On the night of July 19, 1921, the Board gave to the press a six-hundred word statement in which, in expressing their tender sympathy for the people in the crushing losses which had been sustained, following the carrying out of the policies of "deflation," they said:

"The Federal Reserve Board and the Federal Reserve banks recognize the urgency for rendering all proper assistance to these important interests (cotton producers and dealers) during such abnormal times."

And made the much belated announcement, that effective at once:

"The Federal Reserve banks in addition to credits already extended, are able and stand ready to extend further credit for the purpose of harvesting and marketing the coming crop in whatever amount may legitimately be required."

Thereupon about July 31, rates on agricultural and commercial paper were reduced from 6 to 5½% in four Federal Reserve districts including Boston, New York, Philadelphia and San Francisco.

On July 29, 1921, the President issued a statement from the White House regarding measures which had been taken for the relief of the financial and business situation in which he said:

"Perhaps the most important development has been the action taken by the Federal Reserve banks in reducing dis-

count rates. This action is calculated to relieve the stagnation of business." **

July 26th had been set by the Joint Congressional Commission as the day for me to appear before them in connection with the criticisms which I had made against the Board's policies in my Augusta, Ga., speech, but at the last moment and after I had arrived in Washington for the purpose of going before the Joint Committee, the hearing was adjourned for one week—as I am informed, at the urgent request of the Reserve Board. Commenting upon my invitation to attend and the adjournment for a week, the MANUFACTURERS RECORD of August 11, 1921, said, editorially:

"Instantly, we may say, following news that there would be a Congressional investigation, the Board drew over its lion's skin the mantle of a lamb.

"It would not be able to answer Mr. Williams on the date originally set for the hearing, it averred, but it could a week later.

"This significant fact stands out: Mr. Williams, reinforced by public opinion from all over the United States, had scored a tremendous victory before he even took the witness stand. His Augusta speech had forced the issue.

"Rather than meet it, the Board hurriedly and drastically reversed itself all along the line. It (a) saw that rediscount rates were cut; (b) abandoned the system of graduated rates; (c) receded from drastic liquidation of farm products urging the various reserve banks to be liberal hereafter and not to force on the market commodities for which only ruinous prices could be got."

I could go into detail indefinitely with instances and incidents involving tens and hundreds of millions of dollars, all cumulative evidence of the truth of my accusations. It is not necessary, I think, to do this. I will content myself with the general statement that each of the specific instances heretofore cited by me in support of the charge of discrimination harmful in the end to those in whose favor it was exercised, as to those who suffered more immediately by having it directed against them, is a demonstrated, incontestable fact, and that the records show it.

It may be worth while, however, to include in this statement a brief summary of a few of the specific criticisms which I have made against the administration of the Federal Reserve System, the absolute correctness of which the official records prove.

The records establish, among others, the following facts:

1. While certain big banks, were favored with huge loans at low interest rates, small country banks were charged rates—an instant being given of the exaction of an average of 45% interest from a small country bank for a two-weeks loan of \$112,000 in September, 1920, the interest charged on part of that loan by a Federal Reserve bank having been actually as high as 87% per annum.

2. The Board, after seeing the hardships imposed by the so-called "progressive" interest rate, voted down my resolution to limit interest to 6% and also defeated another resolution which I offered to limit interest to 10%.

3. The Federal Reserve bank of New York made its biggest loans to institutions some of whose chief executive officers were large borrowers not only from their own banks, but from other banks which were also big borrowers of the Reserve System. I cited one case where the chief executive officer of a certain banking institution, a heavy debtor of the Reserve bank, was borrowing for the benefit of himself and family, largely on speculative securities, millions of dollars, or more than his bank was lending to all of its National bank correspondents throughout the country. In my annual report to Congress I have recommended that banks be prohibited from lending to their own active officers.

4. The Reserve System loaned at times to big favored banks as much as \$145,000,000 or more to one bank, while small banks in other parts of the country were being starved and denied accommodation. Small banks in various parts of the country were also required, contrary to the spirit and provisions of the Federal Reserve Act, to put up a heavy margin, as additional security for their discounted paper, the margin exacted amounting sometimes from 50% to 200%. I directed attention to the case of one country bank which claims to have been compelled to suspend by its Reserve bank. After paying exorbitant interest as long as it could and after it.

had been stripped of its assets by the Reserve Bank's demand for excess security, the bank was forced to close and is now demanding that the Federal Reserve System pay its depositors in full. The official records also show instances of two other national banks in another reserve district closed by the high-handed action, as I was reliably informed, of a certain Reserve bank official.

5. Not only were the funds of the Federal Reserve System extensively loaned to banks whose executive officers and directors were big borrowers, but the records show that **one of the banks borrowing most heavily from the Reserve bank was lending last autumn to a certain large borrower who at that very time was also a director of the Federal Reserve Bank of New York, over five million dollars (including a dummy loan of over \$3,000,000)—mostly on highly speculative securities, while farmers and the "country" banks were even then begging for relief and enduring ruinous losses because of the credit restrictions of the Reserve System.**

6. The official figures show that in September 1920, the Reserve System was actually lending to the 45 National banks in the three big cities of New York, Chicago and St. Louis about \$300,000,000 more than the System was lending at the same time to the 7673 "country" banks in all the 48 States of the Union.

7. At the beginning of August, 1920, National banks in New York City which were borrowing heavily from the Federal Reserve bank were lending for correspondents on so-called Wall Street Loans, largely for stock speculations, over \$500,000,000 coaxed thither by the high rates speculators would pay.

8. In addition to the money the New York National banks, members of the Reserve System, exclusive of the State banks and Trust Companies, were lending on call for their correspondents and customers they also had on deposit to the credit of their correspondent banks in all parts of the country approximately \$900,000,000 more, although the total sum which the New York National banks were lending to all other banks throughout the country was **considerably less than one fourth** of that sum.

9. The Federal Reserve Bank of New York in the summer of 1920 loaned at 6% or less to a member bank, which about the same time loaned a customer, the head of a large manufacturing company, on his personal note, well-secured by the stock of his company, the net sum of several hundred thousand dollars, for which accommodation the member bank exacted in interest and commission the equivalent of about 200% per annum on the net amount loaned by it. The loans were paid within six months.

10. Contraction policies of the Reserve Board have been largely responsible for the forced sales of Liberty bonds and Victory bonds and the ensuing depreciation in their market value. The shrinkage in value of these securities since the Board put into effect the deflation policies is estimated at more than a thousand million dollars (\$1,000,000,000) and has caused ruinous losses to many of the twenty million patriotic men and women who subscribed to the bonds upon the understanding that they would be an acceptable collateral at banks for loans at low rates.

11. In November 1915, a deliberate effort was made by certain members of the Federal Reserve Board to close up or remove the Federal Reserve banks in three or four important districts, but the execution of this scheme was prevented by the prompt action of President Wilson, Secretary McAdoo and the Department of Justice.

12. About January 1, 1920, the New York Reserve bank was lending an amount equal to nearly six times its own capital, that is, six times the capital of the Reserve bank of New York, to one member institution conspicuous for its New York, to one member institution. This one borrower was thus getting nearly twice as much from the Reserve System as the aggregate amount of loans and discounts which the Federal Reserve bank of Dallas at that time was lending to all of its member banks in that great district, including Texas, and parts of Louisiana, Oklahoma, New Mexico and Arizona.

The newspapers say that Governor Strong of the Reserve Bank of New York tried, before the Congressional Committee, to explain the loan of \$130,000,000 to this institution on the ground that the borrower held \$112,000,000 Government securities, but this excuse won't do, for in my letter to the Governor of the Federal Reserve Board of January 28, 1920, I pointed out that according to the bank's own sworn report, the total amount of Liberty bonds and U. S. Certificates owned

by that institution was less than \$26,000,000. Governor Strong should be more careful.

The loans to a bank's officers are sometimes made at reduced or "family" interest rates, carried indefinitely and not "called", while other borrowers engaged in legitimate and productive business are required to make peremptory payments, regardless of the sacrifice, and sometimes the ruin, which the compliance with the banks demands may involve.

If the officers of the Federal Reserve Bank of New York granted these huge accommodations knowing the use to which certain of these institutions were putting the funds under their command, their officers were culpable for aiding and abetting in a misuse of Federal Reserve money. If they made these enormous and exceptional loans without being informed as to the use which was being made of the money, and without an independent examination of the borrower, after the repeated warnings which the Comptroller of the Currency had given to the Federal Reserve Board that such an examination ought to be made, they are guilty of gross negligence. There is no escape from these conclusions.

The records also show, I believe, most indisputably, that the Federal Reserve Bank of New York has been and is being run on an extravagant basis. The newspapers recently reported plans submitted by the New York Reserve bank for the construction of a new and sumptuous bank building, estimated to cost \$16,000,000—probably more than the total cost of the White House at Washington, the Treasury Building and a half a dozen of our State capitols. As an indication of the extravagance with which the Federal Reserve Bank of New York is being run, I showed that the salaries paid to its "officers" alone, exclusive of other employees, were increased from \$93,000 in 1916 to over \$400,000 in 1920. The salary roll of the New York Reserve Bank from 1919 to 1920 actually increased \$773,000, despite the "deflation" in business.

It appears that the salaries paid by the New York Reserve Bank to two dozen of its "officers" (including its high priced "publicity" officers, aggregate about \$400,000, or more than the aggregate salaries paid by the Government to fifty-two United States senators from all the States east of the Mississippi River. I have been told that a large majority of these "officers" never got over \$1,500 to \$2,000 until they came to the Reserve Bank, and their salaries have been raised rapidly from 100% to 500%, out of public monies.

To make a further comparison, the aggregate salaries now being paid to twelve, or say one-half of these two dozen officials, exceed the total salaries of the President of the United States, the Vice President of the United States, the Chief Justice of the Supreme Court, all ten members of the Cabinet and seven United States Senators, all combined.

Governor Strong, who appeared before the Congressional Committee as an expositor of the policies followed by the Federal Reserve Board and the New York Bank during 1920, was abroad nearly the whole of that fateful year. He left in March or April, 1920, and did not return until January, 1921. His statements as to what was happening in his bank during that period must, therefore, be second-hand as he could have had no personal knowledge of the practices followed.

He promised the Congressional Committee nevertheless to "dispose of the charges finally and conclusively" and I am content to have a discerning public decide how far he has succeeded in reconciling the clearly established facts with a sound, impartial and sagacious policy.

In connection with the mismanagement of certain banking institutions, and the operations of their officers, which it became my duty as Comptroller of the Currency and member of the Federal Reserve Board to criticize and endeavor to cor-

rect, I beg leave to quote here the following extract from my recent address at Augusta, Ga.:

"I have no hesitation in telling you that, as far as I am able to see, the decent and conservative banking element in New York City, as everywhere else, regards just as I do, and as I know you do, the operations and methods of certain big speculators, all the more dangerous because of the prestige given them by their official positions, who have made play-things of the funds of other people, and the performances of accidents, and sons of somebody who have used the wealth and power entrusted to them to defy the moralities and decencies. When the stock holders understand how their confidence has been abused there will be radical changes in the personnel of some of our big banking institutions."

The record has been made and I stand upon it. My object in pointing out the serious errors and mistakes for which the present administration is, in my opinion, responsible has been to prevent their recurrence, for no one can believe more earnestly than I do in the value of the Federal Reserve System if it is managed in the interest of all the people all the time.

As to the past, the big and general fact is that the System failed to function as it should have done and could have done with proper guidance at a critical time, and this failure—not of the System but of its administration—I believe, has caused fearful losses and great suffering.

When I was before the Joint Congressional Committee a month ago, Representative Mills of New York, a member of the Commission, asked me about certain facts in connection with one of my charges, but as soon as he found that a reply would incriminate some of those he was so obviously seeking to shield he shouted, "I withdraw the question". Someone in the audience called out "What about the public?" But the question was not permitted to be answered.

Let me say in conclusion that I challenge and defy the Federal Reserve Board or any member of the Board to deny specifically anyone of these charges and to support such denial. I am prepared to point to the proof of them.

I also submitted to the Joint Congressional Committee certain constructive suggestions for legislation which I believe would be distinctly helpful to the country if favorably acted on by Congress, but I will not encroach further upon your space to take up that subject at this time.

\$300,000 Motion Picture Production Company Launched.

Nashville, Tenn., September 17—[Special.]—Another forward movement in the production of motion pictures in the South was made here this month in the formation of the Cumberland Motion Picture Producing Co., Inc., a \$300,000 enterprise backed by local capital. Options are held on several likely locations for the city studio, and the most modern equipment will be purchased at once. It is claimed that the scenery around Nashville is ideal for varied picture exteriors, while the Cumberland mountains are in three hours ride when needed.

Mr. F. P. Carroll, of California, managing director of the new organization is a producer of many years experience.

Contract Awarded for \$150,000 Church Building.

Somerset, Ky., September 17—[Special.]—The Methodist Episcopal Church has awarded contract for the erection of a church and community house at the cost of \$150,000 to the Associated Engineering Co., 106 College St. It will be four stories high, 122 x 128 feet, of reinforced concrete with slate roof. Plans were prepared by the contractors.

An Optimistic Story from Birmingham.

Breathing a spirit of optimism—optimism based on energy and hustling qualities—Mr. E. L. Thomas of the Thomas Grate Bar Co., of Birmingham, in a personal letter to an official of the MANUFACTURERS RECORD writes:

"But now, listen at the good things. July business was 50 per cent better than June. August business was 100 per cent better than June. September business bids fair to exceed all of them. In fact, we cannot see anything else except good times ahead and the glorious part is that we had faith enough to hold our organization and every man and every girl is in his or her place striving to relegate Old Hard Times to the rear and make friends with Mr. Normalcy at the earliest possible date.

"We have a nice inquiry from Bombay that looks like and sounds as if it will terminate into an order as quickly as our reply can reach them and have their attention, which will take about three months. This will aggregate somewhere between \$4700 and \$6000, according to specifications. We have another inquiry from New Zealand, but it does not bear so distinctly the ear-marks of promise and hope. Then we have inquiries from the Carnegie Steel Company, the Brownell Company, the Pennsylvania Boiler Company, the Clyde Iron Works, the Marion Steam Shovel Company and a long string of others of less prominence but rated a million or more, these having come into us in the past few days and are in the process of closing. In fact, several of them have come in during the last two days and the writer has to get on the job in person with some of them. I have a letter from one of them this morning complaining that I promised to be there several weeks ago and haven't gotten there yet and they say they are in dead earnest and would like to know when I will be there. Several of these use several hundred sets of bars a year and we have them thinking about and considering adopting W-S-D Bars for all of their equipment.

"The above is a little ray of optimism and is also an index as to what is in store for us, either through easy or hard working, which ever it takes to land the possibility, for we are already on the job with all four feet endeavoring to do all that we can ourselves and inspire every representative that we have to do today; for we are believers in Herbert Kaufman's statement when he said—

"Waiting Until Tomorrow" has destroyed more business, ruined more lives and annihilated more armies than the power of enmity."

Mobile Exports of Iron and Steel Extensive and Give Promise of Further Increases.

Mobile, Ala., September 17—[Special.]—During the first half of this year more than 100,000 tons of rails valued at \$3,250,000 have passed through the port of Mobile. Most of these rails and accessories came from the mills of the Tennessee coal, Iron and Railroad Co., at Birmingham, and the bulk of the tonnage was carried in vessels built at the Chickasaw Shipbuilding & Car Co. Shipments have been made to China, Japan, Cuba and South American countries. To these shipments must be added the large tonnage of structural steel, cast iron pipe, machinery of various kinds and other products of iron and steel. The latest contract for rails made at Birmingham is for 17,000 tons. One cargo has already left and others are on their way.

When it is recalled that the spring of 1921 was a very dull period the shipments through Mobile of metal products appear very good, for more products of this character left the port than in any similar preceding period. Consumers now are evincing a better buying disposition and slightly better prices are to be obtained. Yard stocks accumulated in 1920-1921 are becoming low, and it is believed that it will not be long before the majority of stocks will again be in operation.

Gusher Wells of High Grade Oil Bring Mexia Field of Texas to Forefront in Interest and Importance.

[Special Dispatch to Manufacturers Record.]

Dallas, Texas, September 18.

With the drilling in of the Kirby Petroleum Company's Nussbaum well No. 1, three miles west of Mexia, Texas, an estimated production of over 25,000 barrels of oil a day has been added to the Mexia field, which is without pipe line or adequate storage facilities. The field had already attained the record of having more drilling operations under way and greater activity in financial transactions than any other section in the Mid-continent division, great stimulation having been given by the completion of the Western Oil Field's Corporation's Desenberg well No. 1, one mile south of the Nussbaum well, on August 29.

The bringing in of the Kirby Company's producer, the biggest in the field, has already given added impetus to developments and is said to have more than doubled the lease value of adjoining acreage, some of which is reported to have changed hands Saturday for as high as \$10,000 an acre. Prior to the completion of the Nussbaum well the highest price paid for leases without production is reported at \$2,500 an acre.

John Henry Kirby, a lumberman of Houston, and T. H. Bass are said to be the owners of the largest interest in the Kirby Petroleum Company. These men, with several associates, went to Mexia Friday in a special car to witness the bringing in of their well. The well was drilled into the oil sand Friday night at around 3,000 feet. On Saturday it was allowed to flow into a 1,000-barrel tank, pinched down to one-fourth capacity. The tank was overflowing at the end of one hour. Messrs. Kirby and Bass estimated the producer capable of making more than 30,000 barrels a day. Opening of the well to full capacity until additional storage is provided has been forbidden by the deputy supervisor of the Oil and Gas Division of the State Railroad Commission, because of the waste and fire hazard.

Arrangements are being made by the Kirby Petroleum Company to erect twenty steel storage tanks at the well, each of 55,000 barrels capacity. The Magnolia Petroleum Company is also preparing to run a feed line to the lease from the site of its tank farm near Groesbeck, in the same county.

Marketing of the production of the Mexia field is the most serious problem confronting the operators. Provision of facilities for handling the oil has lagged far behind the production. Until the Western Oil Fields Corporation brought in its Desenberg well, which is estimated to be capable of making over 20,000 barrels a day, the larger companies kept out of the field. Up to that time 4,000 barrels was about the maximum daily production for any one well. Officials of many of the bigger companies were frankly doubtful that any considerable production would ever be developed, declaring that the color of the oil indicated the possibility of underlying salt water and that the Woodbine sand, from which the oil comes, had generally proved unprofitable in the Mid-continent field.

Soon after the completion of the Desenberg well, the Humble Oil and Refining Company, a Standard subsidiary, made several purchases in the field, followed by the Magnolia Petroleum Company, another off-spring of the Standard.

One million one hundred thousand dollars was paid last week by the Magnolia for the Western Oil Fields Corporation's Desenberg well and 48 acres. The company secured 175 acres near Groesbeck, also in Limestone county, as a site for a tank farm and a pump station, announcing its intention of spending a million dollars on the plant.

Four hundred acres have been bought by the Humble Company four miles north of the Desenberg well for \$60,000, in addition to several other blocks previously obtained.

Just how long the wells will hold up has not been thoroughly proved, since the field has been handicapped from the start by lack of a market and the wells held in.

For several months the Texas Company took most of the oil produced by the Humphreys-Mexia Company, a \$10,000,000 organization headed by Colonel A. E. Humphreys, who brought in the first well in the field the latter part of last year. While the Texas Company has a pipe line within miles of the field no connection was made and the oil was handled by gathering lines and shipped by rail.

Following a dispute several months ago the company discontinued buying oil and since that time the wells were "pinched in" or shut down entirely after all available storage was filled. There are about a score of producers being held down, which is said to be a menace to the future production.

Regardless of this situation there are nearly fifty wells drilling, a number of which are said to be nearing the depths of 3,000 feet, at which production is secured.

Bitter complaints have been made by the operators over the attitude of the purchasing companies and charges of discrimination against the field are frequently heard.

Refinery runs are said to show that the oil is a fairly good grade of light crude.

The productive area of the field proven by the latest completions extends six and one-half miles north and south and is about one-half mile wide at the widest point, the center being two miles west of the town of Mexia. The Kirby Company's late producer adds half a mile to the productive area on the north, being that distance beyond the Desenberg well, which formerly defined the northern limit.

Contract for a \$400,000 refinery was awarded recently by the Humphreys-Mexia Company to C. V. Miller of Breckenridge, Texas. Arrangements for the erection of several other refineries have been reported.

Importation of Mica from India Strangles Domestic Production.

A news item in the Charlotte Observer recently in stating that the Tar Heel Mica Company, Plumtree, N. C., is manufacturing mica, filling orders for such companies as the Pennsylvania Railroad, The General Electric Company and other concerns contains the following pertinent facts:

"Although this entire region is well supplied with mica of splendid quality, much of the raw material used by this company is imported from India, as it can be brought in and stand the cost of high transportation rates at a price much cheaper than the native mica mined with the present labor costs. With the proposed tariff rate, North Carolina mica will undoubtedly come into its own again and be a source of great wealth to this region."

Home Building Activity at Louisville Increases.

Louisville, Ky., September 17—[Special.]—Definite figures showing the revival of construction activity during recent months are contained in the report of Emil Korell, building inspector, for the year ending August 31. During the last 6 months of the fiscal year, permits were issued for 388 houses, whereas during the same period last year only 257 permits for houses were issued. In July, 48 permits for homes were issued, while in August the number was 72.

Why Further Withhold Recognition of Mexico?

CONDITIONS AS DESCRIBED BY TRAINED OBSERVER DEMONSTRATE ORDERLY FUNCTIONING OF CAPABLE GOVERNMENT WITH TRANQUILITY AND INDUSTRY INCREASINGLY PREVALENT—MEXICO NEEDS COOPERATIVE WORK OF UNITED STATES.

(Mexico desires and needs the cooperation of the United States. Mexican trade can be made more valuable to this country than the trade of a dozen European nations; even if out of bankruptcy. Mexico is the greatest storehouse of mineral wealth in the world, and in agriculture, livestock and timber there are tremendous potentialities. Mexico is our very near neighbor, and Mexico wants to do business with us. The people of the United States may well begin to ask what is holding back the re-establishment of most cordial relations between this country and Mexico. Why don't we recognize the Obregon Government? is being asked with more and more insistence.

Conditions in Mexico are lucidly described in the article herewith by Mr. W. K. Whipple, a Texas business man who knows Mexico and who is at this time making a further investigation at first hand, within the Republic. What he reports in the present article is timely and convincing information as to the stability of conditions and the urgency of immediate friendly action by the United States Government—Editor Manufacturers Record.)

By W. K. WHIPPLE.

To one whose ideas as to the conditions in Mexico have been formed mostly through information gleaned from the American press and from magazine articles there are many surprises south of the Rio Grande, in the land of extremes.

Either conditions in Mexico have been grossly exaggerated or the Obregon Government has made tremendous strides in every direction since coming into power. Upon reaching the border the promptness, politeness and efficiency of the Mexican officials is at once apparent. Entering Nuevo Laredo on a Sunday afternoon we found all saloons were closed. The depot, bridge approaches and city were well policed both by soldiers and local police. The band played in the Plaza to a large and orderly crowd. The streets were clean and things as a whole compared favorably with the city of Laredo on the American side.

But one cannot judge Mexico and Mexican conditions by any of the border towns. They are quite different from Mexico proper, being neither Mexican nor American, and are not distinctive save as a gathering place for the riff-raff and adventurers from both countries. While on the border the American type saloon is a familiar sight, it is not in the cities of Mexico proper, where most liquor is sold in cafes, groceries and delicatessen stores and drunkenness is most unusual. The largest and best patronized cafe in Mexico City does not serve intoxicating liquors at all.

Leaving Laredo the excellent condition of the railroads is at once apparent. At Monterey and Saltillo there is an absence of the atmosphere of the border, no rush and jostle, four or five soldiers on duty at the depot and an occasional policeman in the congested section of the cities. Everything is clean, peaceful and orderly; it is not the enforced order of military rule but the natural order of a people going about the pursuit of their affairs. This impression of order grows as one visits the many cities and states of the Republic.

San Luis Potosi was a strong Carranza state and the present Governor still has the General's portrait hanging in a conspicuous place on the wall in the outer reception room of his private office in the State Capitol.

President Obregon recently visited the State fair at this city, signifying his feeling towards those who in the past differed with him. He was most cordially received by the people.

The architecture, elegance and size of this beautiful pink sandstone edifice, its furnishings and its setting are most impressive. The city of San Luis Potosi is beautiful and well finished. It has large commercial stores, ample railroad outlets and is the capital of one of the most prosperous states of the Republic. If the city was damaged by the revolutionists during the past ten years no evidence of any destruction can be found today, and the city bears every evidence of active and prosperous business life. American goods, with the exception of automobiles, typewriters, sewing machines and agricultural implements, do not predominate. The abundant stocks carried are largely of Spanish, French

or Italian manufacture, particularly so as to canned goods, haberdashery and dry goods. This condition holds true throughout the Republic, with the exception of Mexico City, where most of the staple American products can be found, but at higher prices than similar articles of European manufacture.

Guadalajara, the capital of the State of Jalisco, is located at the head of a beautiful valley some six hundred kilometers northwest of Mexico City. This valley has been irrigated for centuries. The Spaniards improved upon the old Indian irrigation system, and their improvements have been maintained. English interests some fifteen years ago built a large hydroelectric system there, which extends throughout the country for some two hundred miles.

Within twenty-five miles of the city is the beautiful Lake Chapala, ninety miles in length, with its bathing beaches and natural beauty. Northeast of the Lake are the great Juanacatlan Falls, second only to Niagara, in volume of flow, among North American waterfalls. The present population of the city is about 150,000 and, like all the better class cities of Mexico, its built entirely of stone, brick and concrete.

The peons live to themselves in the poorer sections of the city in one story adobe structures. As an abundant supply of 'dobe' (mud) is always at hand, wood, which is scarce, is not used, nor could the cheapest American lumber compete. The better classes build better homes and seem willing to spend relatively more of their wealth on them than Americans, which accentuates the extreme between the homes of the poor and the well-to-do. Many beautiful homes are now being erected in Guadalajara and inquiry as to their cost showed that they could be constructed for about one-fourth to one-fifth of what similar buildings would cost in the United States, due chiefly to labor costs both in the building and manufacture of the material.

Guadalajara does a large foreign export business. During the past season about sixty carloads of pecans were exported. 700 carloads of Spanish beans went to Spain, large quantities of coffee, pineapples, bananas and apples, while shipments of tomatoes, sweet potatoes, watermelons, plums, and other fruits are made throughout the Republic. One landholder in this State controls about 750,000 acres of land, devoted to ranching, of which 30,000 acres is under cultivation. This property originally consisted of 1,500,000 acres, but half of it has been sold and has been largely put under the plow. The owner at one time was able to boast that the distance around his land was greater than the distance from Guadalajara to New York City. Through the recent decree issued by President Obregon many of these large holdings must be sold or placed under cultivation, for it is fully realized that the foundation stone of the Republic must rest on the settlement of the agrarian question. During the revolutions of the past ten years thousands of Mexican laborers crossed the border into Texas, New Mexico and Arizona, where they were engaged mostly in agricultural pursuits. They have be-

come familiar with American agricultural methods, and now that they are returning to their home country in great numbers they cannot fail to give an impetus to agriculture and the use of modern implements, provided the opportunity is given them to occupy the land. Recognizing this fact, during the dull times of the past few months, the Obregon Government has co-operated with the authorities in the border states toward returning all idle Mexican laborers to Mexico and has paid the expense thereof. Due to conditions in the cotton belt and oil fields of Texas, the shutting down of the mines and smelters of New Mexico and Arizona, this exodus has assumed considerable proportions and presented no small problem to the Mexican Government, which has, however, handled the situation well.

Aguas Calientes, deriving its name from the numerous hot springs in that vicinity, is not a wealthy city and affords quite a contrast to the large and wealthy cities of the Republic. However, it is a railroad center and advantageously situated. The Government, just previous to the Madero revolution, built complete and extensive railroad shops there with the idea of eventually giving employment to 45,000 people. During the past ten years the work has been intermittent, but the present Government is filling these shops with work. Progress has been slow, as they have to educate and train skilled mechanics. These shops are well and substantially built of brick and steel from American design and are complete in every detail. They have the machinery and equipment with which to turn out complete locomotives, even from the smelting of the iron to the finest machine work. The property was not damaged or looted in any way by the successive revolutions, although the town was occupied on many occasions by the several contending armies. The natives take great pride in these shops and one of the chief attractions is the boy's band, composed of some forty young boys employed at the shops.

The Governor, though he did not seek office, was elected by a coalition of all parties. He, like all of the better class Mexicans, discussed Mexico and her problems with perfect frankness and with no criticism of the United States. That they earnestly and hopefully want the good will and friendly accord of the United States is beyond question.

Torreon, in the State of Coahuila, is probably the most American of Mexico's cities, due to the large American mining interests centered there. In addition to the mining and smelting interests agriculture lends largely to the support of the State, American capital having erected a modern cotton mill there some twenty-five years ago. Practically all of the mines and smelters are shut down at the time of this writing, but the Mexican Government is providing employment for the laborers as rapidly as possible in reconditioning the railroads and other public work. There are many Americans in Torreon, many of whom were interviewed, and to a man they stated that conditions during the past ten years had been greatly exaggerated, that there never was a time when they felt in serious jeopardy, either as to property or person, though Torreon was in the very midst of revolutionary military activities at various times. Several Americans of prominence, who had been there twenty years or more, were very emphatic as to this, stating that the looting and destruction ascribed to the various armies had been greatly exaggerated, and that most of the destruction had been damage to railroad property which in cases was justified by military exigencies.

To the American business man contemplating a vacation trip during this fall or the coming winter Mexico offers a delightful surprise. He should go himself, for he will find the highest type of cultured and refined gentlemen conducting the substantial businesses of Mexico. Many firms have been in business for generations and their credit fully established in European centers of trade. There has been

but one business failure of consequence in the City of Mexico during the past twelve years, which indicates the firmness of the Mexican business institutions. They have ample banking facilities to do business with us, and the better class of Mexican merchants are not asking for nor expecting undue credit, but they expect their goods to be shipped in properly packed and according to their specifications. Where goods have to be wholesaled it must not be forgotten by the American manufacturer that 90 per cent of all merchandise shipped into Mexico must be hauled on the backs of burros before it reaches the ultimate consumer.

These people in turn have much to sell us. The far-seeing Mexican business man looks forward to a large reciprocal trade with the United States. Many of them have been educated in Europe and make frequent visits thereto. They are personally acquainted with the principals of the various European concerns with whom they do business, which naturally makes them feel closer to European manufacturers. Therefore the American manufacturer or principal has much to gain by coming personally in contact with them.

No European country offers greater opportunities for pleasure and sightseeing to the American business man than Mexico. He can travel in safety and comfort, with every convenience. The railroad facilities throughout the country are first class, American hotels are found in all of the larger cities, and wholesome food is the rule rather than the exception. New American hotels have just been completed in Guadalajara and Torreon, which would do credit to any American city of similar size.

A high Mexican Government official stated that Mexico is in most urgent need of cattle to restock their depleted herds, milch cows, agricultural implements and windmills. He estimated that 500,000 steel plows and 50,000 windmills could readily be used. The wooden plow is still in use in most parts of the country and practically all water for irrigation is drawn by hand.

Mexico is on an absolute gold standard today, there being no paper money whatever in circulation, nothing but metallic coinage, gold predominating, with silver and copper for the minor coins. With a stable Government Mexico could undoubtedly accumulate, in a very short time, a sufficient gold reserve which with the excellent conditions of her banks would enable her to issue a substantial amount of paper currency.

The present total bonded indebtedness of the Mexican Government is approximately \$230,000,000 American gold, in principal. Interest on practically all of this debt is about 11 years in default. In addition to this debt (which is comparatively small considering Mexico's potential wealth and the enormous debts of the civilized nations today following the European war) Mexico will of course have to adjust huge reparations claims for damages to alien property during the recent successive revolutions. It is difficult to even hazard a guess as to what these claims will total, but whatever they may be the grand total is certain to be far above what Mexico can pay in cash. There is, however, no apparent disposition in Mexico to dodge or dispute any just claims. The Obregon government has been careful to emphatically go on record in this connection. President Obregon has also been emphatic in his statements as to Article 27 being non-retroactive.

Mexico, emerging from her internecine strife, is naturally shattered and torn with conflicting political ideals, panaceas and parties, nor has she escaped the slimy hand of the Bolshevik, spreading crazy doctrines with the blood money of Lenine and Trotsky. These and labor agitators have left their trail in various sections, as is shown by some of the radical labor legislation recently passed by the Legislature of the State of Vera Cruz. The Obregon government is com-

posed of various elements, it might be well called a coalition, but Obregon is rapidly becoming known as the great conciliator, and even his enemies, who are powerful and many, acknowledge this.

Obregon's pictures do not do him justice. His steel grey eyes, his manner and firmness give the impression of great strength and personal magnetism in kindly setting. Most American residents of Mexico lean toward him as the best hope of the last ten years. The border States of California, Arizona, New Mexico and Texas, through their business men's organizations and probably through their State Legislatures as well, favor recognition. Many of them who understand Mexico, its people and their characteristics, feel that the United States Government has put the cart before the horse in the Hughes demands. They say that Mexican pride is involved; that if the Obregon Government is recognized that Mexico will naturally expect to and want to conform to the law, both written and unwritten, of civilized nations in the conduct of her affairs. As one old American resident put it "These people have had a bad 'rough-house' in their internal affairs, some innocents have suffered in the general melee, but the present Government cannot be held entirely responsible for all that. They have done their best to bring about order and have accomplished it, but your Government at Washington says to Obregon, 'We want to sit down to the table with you but we won't sit down until you first guarantee that you are going to behave yourself.' To the Mexican especially of Spanish descent, it is somewhat like saying to

him, 'I would ask you to sit down and dine with me but I am afraid you are no gentleman. You must first show me that you are.'"

The Obregon Government is on record as to its willingness and desire to provide machinery at the earliest possible moment for the settlement of the reparations claims, the return of private railroad property to its owners, and in as good condition as when taken over, also as to Article 27 being non-retroactive. What, therefore, is the great stumbling block between Washington and Mexico City? Is it the question of oil duty alone? Is it the question of the Hughes demands? Are there powerful influences on this side of the border against the recognition of Obregon for other reasons? On both sides of the border one can hear much but learn little.

The foregoing observations are presented with the idea of giving a fair impression of conditions in Mexico at this time. As to the diplomatic situation one does not hear much from the Mexicans, most Mexicans apparently feeling that Washington will handle the recognition problem pretty much its own way. They are trusting to American fairness.

During the last fiscal year over 200 million dollars worth of American goods were imported by Mexico. This might with ease be doubled or trebled by the business men of the United States. The potential wealth of Mexico may almost be said to be unlimited and with its development great opportunities are available to the manufacturer who is willing to meet them halfway.

America's Progress in Chemical Industry Revealed at Seventh National Exposition.

BY HERSCHEL BRICKELL.

New York, September 17.

Marked by the completeness of its exhibits and by the breaking of attendance records, the Seventh National Exposition of American Chemical Industries came to a close here tonight, after upward of 100,000 chemists and laymen had viewed the marvelous showing of the progress of chemistry and its allied industries in the United States during the past year.

Four hundred exhibits were housed in the vast armory of the Eighth Coast Artillery, all on one floor, and a walk of two miles through aisles lined on either side with the products of American ingenuity and skill was provided for the visitors who thronged the exposition hall, by the thousands in spite of the fact that the Armory is comparatively inaccessible, and almost an hour's ride from the downtown portions of the city, even by subway. The exhibitors voted to return next year to Grand Central Palace, which was not available this year, but which will be ready for the Exposition opening September 11, 1922.

One of the most striking things about the exposition was the showing made by American dye manufacturers and the makers of machinery and equipment essential to the dye industry. On every wall was an emblazoned appeal for protection of the industry during the present crisis, with figures to bear out the statement that the German dye industry was making a savage fight to regain monopoly of the world's dye supplies.

As one entered the main doors of the Armory, at the far end of the building a huge sign could be seen, bearing this quotation: "We must conserve chemistry. It is the gospel of industry and the protection of nations. Without the pure science, we cannot apply it, and without applied chemistry, we shall be defenseless in war and laggards in peace."

Other placards told of the vast increase in the manufacture of dyestuffs during the war-period, and of the establishment of almost the entire existing industry of organic

chemistry in the past seven years. One, in particular, told of the significant falling off of exports of dyes from this country during the early months of the present year, indicating that Germany was again determined to gain control of world markets for dyestuffs as means toward realization of another dream of world conquest. In the first four months of 1921, exports of aniline dyes declined from \$943,593 in January to \$305,760 in April.

Nothing was more striking than the exhibits of coal tar products, scores of new dyes that have been developed during the past year shown at booths that were gay with many-colored fabrics. Demonstrations were given that would have satisfied the most doubtful of the fastness of American dyes, a charge which American chemists resent as revival of German propaganda. They declare that American dyes are as fast and as good as any Germany ever made.

Invention and perfection of machines and materials essential to the dye industry have kept pace with American chemists' work in dyes, and some of the most attractive and interesting exhibits at the show were of machinery for treating air in factories, and for removing dust. There were also exhibits of clay products that are acid-proof, glass for laboratory use, fine porcelains, hard rubber, and insulating brick for the modern types of laboratory and factory furnaces, with their terrific heats.

It is a far cry from Perkin's mauve, the first coal tar dye, to the scores of colors and tones that have been derived from this unromantic looking raw material, and the work of American chemists in the development of new colors and especially in perfecting satisfactory commercial methods of production has been as to remove forever the German-born idea that only Germany could produce coal-tar products satisfactorily.

The intimate relation of the dye industry to warfare is brought out clearly in many of the exhibits, and especially in

that of the National Research Council, which shows an idealized arrangement of peace-time chemical plants, all capable of being converted almost instantly into factories for the production of gas and other essential war materials.

The relation was emphasized in many of the addresses made before the daily symposiums held in connection with the Exposition. "America's future, economically and defensively, is closely linked with the development of her chemical industries," declared J. Merritt Mathews, who said this country must never again become dependent upon Germany. Representative Fred S. Purnell of Indiana said: "America has taken the lead in the world's chemical industry since the war. That position must be sustained not only as a potential element of preparedness, but as a peace measure."

"The coal tar industry and the science of chemical warfare are so closely related that it becomes our paramount duty to protect the chemical industry," he said. He gave a brief summary of the rapid development of the industry in the United States, stating that in 1915 seven plants produced \$3,596,795 worth of dyes, and in 1920, 90 producers made dyes valued at \$95,613,749. He said he favored protection that was tantamount to embargo.

Harrison E. Howe, head of the Department of Industrial Research of the National Research Council, in speaking of the imperative necessity of protection for the chemical industry said: "It is to relieve America from such dependency that our organic chemical industry must be retained and firmly established. The argument centers on dyes, for unless dyes are made we cannot have medicines, drugs, flavors, perfumes, war gases, and all the other coal tar derivatives."

He declared a tariff had never shut out German cut-throat competition, and said an embargo was necessary. Replying to statements that an American monopoly would grow up without foreign competition, he said: "We have ways and means of controlling American industry. We cannot control foreign monopolies and trusts and surely no one doubts that our textile, ink, and paint manufactures would be better off in the hands of an American-controlled industry than at the mercy of a foreign monopoly."

An international flavor was given to the Exposition by the presence of scores of visitors from European and South American nations, in addition to chemists and manufacturers from the Orient. It was said that no American exposition in the past had ever attracted so many foreign visitors, and their attendance was regarded as evidence of the paramount position occupied at present by the chemical industry of the United States. Visitors who had attended previous American expositions as well as those of Germany in pre-war days said the show this year was one of the best, if not the most complete and interesting, they had ever seen.

An interesting sidelight upon the revival of business was cast by the many orders placed for products, machinery and materials shown at the Exposition. Booth managers said they were agreeably surprised by the business they had obtained, and were sure it was an excellent index to the state of mind of manufacturers the country over, and that the tide of prosperity was setting in again after the months of depression.

From Canada came the only exhibits at the show that were not produced in the United States. The Department of Mines of that country sent an imposing exhibit, well-arranged, and giving a good idea of the natural resources of our Northern neighbor. A hint of the vast stores of minerals still to be exploited is given in the figures of 1920 of coal, nickel, gold, copper, asbestos and silver, which were \$77,326,853 for coal; \$24,454,597 for nickel; \$15,853,478 for gold; \$14,166,479 for copper; \$13,677,841 for asbestos; and \$12,908,683 for silver, a total of \$218,000,000 in round numbers.

Progress in electrochemistry as recorded in the show

formed one of its most interesting features. This comparatively new phase of the chemical industry has had a remarkably rapid growth. Its influence upon metallurgy has been of inestimable value, and the use of the electric furnace is increasing daily. Electrolytic zinc is one of its prize products, exhibited at the show, and aluminum is another typical electrolytic product. Cadmium is increasing in use and value. A display of electrolytic ductile nickel attracted many visitors.

Of great interest to the South was the showing of two sources of paper stock. Pulp forests are going rapidly, and it is believed they will be exhausted in fifteen years. The world's tremendous and ever-increasing consumption of paper lends especial value to the discovery that in cotton waste and pine tree stumps there are two valuable sources of paper of all grades, from the stoutest wrapping paper to the finest bond.

Bond paper turned out from cotton linters was shown at the Exposition, the direct result of the dismantling of the gun-cotton factories at Hoopewell, Va., which have been turned into peace-time plants. It is estimated that 2,000 tons of this raw material are available daily, from which may be produced 1,600 tons of cotton linter pulp, from which practically pound for pound of high grade writing papers, book papers, and such stock may be turned out.

This will also have its effect upon the serious newsprint situation, for it makes possible the use for newsprint of products now turned into finer grades of paper, and adds a new source of raw material in the used paper itself.

The use of pine stumpage and other waste for the manufacture of paper is not new; but it is interesting to note that processes have been perfected which promise to turn this waste into a source of great wealth for the South. Cellulose is manufactured at the same time as the paper stock, and there are by-products of turpentine, pine oil and rosin. For several years a mill for the manufacture of kraft paper from pine stumps has been in successful operation at Moss Point, Mississippi, and it is said that paper of this grade has been produced more cheaply there than at any other plant in the world. Joseph Wallace & Co., engineers, of this city, exhibited these new possibilities for utilizing pine waste. Improvement of lands by the removal of stumps is no small feature of the plan.

The Southern Railway Company's development department had a comprehensive exhibit of mineral resources of the Southern states, which must have been an eye-opener to those whose impression of the South are that it is essentially an agricultural region.

Among other Southern exhibits was that of the Federal Phosphorus Company of Birmingham, which is said to have been the first concern to make phosphoric acid commercially in the electric furnace by the condensation and precipitation method.

No American could attend the Chemical Exposition without a thrill of patriotic feeling at the vastness of the industries represented, and at the ingenuity displayed in the inventions and discoveries of American chemists, which in a remarkably short time have put this country in the position, from a world-standpoint, once so boastfully held by Germany.

Building Activity Increases in Atlanta.

Atlanta, Georgia, September 17—[Special.]—During the first 10 days of this month the valuation of building projects undertaken here exceeded by \$100,000 the permits issued during the same period last year. According to C. J. Bowen, building inspector, prospects are bright for building activity of all kinds this month, the total valuation for 10 days being \$368,380.

Amazing Industrial Expansion of Carolina Exemplified at Charlotte Exposition.

[Special Correspondence Manufacturers Record.]

Charlotte, N. C., September 17.

The "Made-In-Carolinas" Exposition held at Charlotte September 12-20, is more than an exhibit of manufactured products; it illustrates the industrial growth of North and South Carolina, and exemplifies the progressive spirit of the South. Through one of the worst business depressions in the country's history, the project has been successfully carried out by the Carolina business men, the promoters and exhibitors alike, whose faith and energy made the undertaking possible. Happily, on every side there are expressions of a feeling of optimism and business men are looking toward a revival of activities, which makes the value of the exposition at this time all the more important.

The efforts of the management in this initial enterprise, the first of the kind in the South, have been rewarded by the public's interest and support. Days of special interest were observed on which nationally known speakers were invited to make addresses. Among such days set apart were South Carolina day, textile day, bankers' day, farmers' day, educational day, Statesville day, and Winston-Salem day. Special entertainment features included the free musical program rendered daily by talented instrumental and vocal artists and noted soloists.

Nationally known manufacturers and smaller concerns of North and South Carolina were represented. The variety of the products displayed is indicated by the management's statement that 3,000 separate articles were shown. While the exposition by no means gave a complete survey of the extent of Carolina's manufacturing, it nevertheless forcibly impressed one as to the great strides that have been made in industrial development in the past twenty years, or even the last ten, and fully vindicated the forecasts of farseeing men of this and former generations. The ultimate limits of the industrial development of the region probably no man can foresee.

The recent census of manufacturers for North and South Carolina, combined show that these two states, in 1919, produced \$1,325,262,000 worth of manufactured products, compared with \$428,303,000 in 1914, a gain in five years of \$896,959,000, or 209 per cent. During that period the amount of capital invested in manufacturing increased \$487,895,000, or over 100 per cent, and primary power increased from \$48,309 to \$45,147 horsepower. The growth of textile manufacturing can be appreciated when it is stated that there are 770 mills in these two states.

The textile exhibit at Charlotte was very good but not as comprehensive as it might have been. Other products represented included food, furniture, construction and building, mineral, tobacco, leather, machinery and machinery equipment and Carolina-made automobiles.

Limitation of space forbids separate mention being made of all the attractive exhibits, for each in its way told of the progress and perhaps romance and some tragedy in Carolina's industrial development. The tragedy part may be illustrated by the mica industry of North Carolina which is compelled to compete with the starvation-wage-produced mica of India, to the detriment of the development of the local mining industry. Without protection, or else wages reduced to the Oriental standard, which is unthinkable, this native mica, though of the highest quality, cannot be mined profitably.

The exhibit of the Southern Power Company, which because of its place in Carolina's industrial development is of special

interest, for it is a strictly "Made-In-Carolinas" product, made possible by the numerous resources of available water powers. This company is a \$65,000,000 concern, producing over 300,000 horsepower, generating by hydro-electric power the light and power for Charlotte, Winston-Salem, Greenville, Spartanburg and about twenty other cities and towns in its territory. In less than twenty years this concern has constructed eight hydro-electric plants, four steam plants, and 210 substations, supplying its customers through 2,200 miles of circuits. The economic value of this water-power development is seen in the fact that it saves the equivalent of 1,500,000 tons of coal annually. It furnishes power to drive one-third of all the textile spindles of the United States that are driven by power companies and central stations.

Among the list of manufacturers at the exposition were:

American Southern Motors Corporation, Greensboro, N. C., Vaughn, automobiles.
Anderson Motor Company, Rock Hill, S. C., Anderson automobiles.
American Products Corporation, Reidsville, N. C., soap and toilet preparations.
Alexander & Garsed, Charlotte, N. C., castings and foundry products.
Aragon & Baldwin Mills, Rock Hill, S. C., prints, cloths.
Atlantic Paint & Varnish Co., Wilmington, N. C.
American Tobacco Company, Durham, N. C.
American Yarn & Processing Company, Mount Holly, N. C.
Astyptidine Chemical Co., Wilmington, N. C.
Arista Mills, Winston-Salem, N. C., crambays.
Automatic Safety Car Step Co., Charlotte.
Armstrong Mills, Gastonia, N. C., yarns.
Atlantic Marl, Lime and Fertilizer Co., New Bern, N. C.
Asheville Mica Company, Asheville, N. C., mica products.
W. P. Broome & Son, Charlotte, lumber and box shooks.
Bellwill Cotton Mills, Wilmington, N. C., gingham.
Barnhardt Manufacturing Company, Charlotte.
The Bohnson Company, Winston-Salem, N. C., humidifiers.
Biltmore Wheat Hearts Co., Asheville, N. C., cereals and breakfast foods.
W. R. Borsal Company, Hamlet, N. C., gravel.
G. C. Buquo Lime Co., Hot Springs, N. C., crushed lime.
Blue Ridge Lime Co., Asheville.
Biltmore Talc Company, Asheville.
Jesse Bare, Crumpler, N. C., clay and clay products.
Clinchfield Products Corporation, New York, N. Y., feldspar.
Carolina Mineral Company, Penland, N. C., feldspar.
J. E. Coburn & Bryson, N. C., clay and pottery.
R. E. Coster, Lincolnton, N. C., peat.
Chestnut Cross Arm Company, Waynesville, N. C.
Cherokee Brick Company, Raleigh, N. C.
Champion Fiber Company, Canton, N. C., woodpulp, caustic soda, binder and road surfaces.
Clinchfield Lime Company, Linville Falls, N. C.
Cummoek Coal Mining Company, Cummoek, N. C.
Carolina Sand & Gravel Co., Carthage, N. C.
Charlotte Clothing Mfg. Co., Charlotte, N. C.
Carolina Fly Screen Co., Charlotte.
Cyclone Starter Company, Greenville, S. C., cyclone truck.
Charlotte Electric Repair Co., Charlotte.
Charlotte Knitting Company, Charlotte, men's artificial silk hosiery mill.
E. A. Cole Mfg. Co., Charlotte, agricultural implements.
Charlotte Casket Company, Charlotte, coffins.
Charlotte Leather Belting Company, Charlotte.
Cocker Machine & Foundry Co., Gastonia, N. C., dye machinery, warpers and cotton machinery castings.
Cement Products Company, Wilmington, N. C., sewage disposal outfits and other cement products.
Cunningham Springless Shade Co., Greensboro, N. C.
Charlotte Marble & Granite Co., Charlotte.
Chrosile Mills, Belmont, N. C.
Charlotte Mfg., Charlotte, card clothing and reeds.
Charles Spading Company, Belmont, N. C.
Carolina Parlor Furniture Co., Statesville, N. C.
The Chatham Mfg. Co., Winston-Salem, N. C., blankets.
Continental Furniture Co., High Point, N. C.
Elkin Show Company, Elkin, N. C., shoes and leather goods.
Elmore Company, Spindale, N. C., finishing cotton yarns.
Elk Mining Company, Plumtree, N. C., mica products.
Fidelity Hosiery Mills, Newton, N. C.
Geoghean Shirt Co., Reidsville, N. C.
Georgia Talc Co., Asheville, N. C.
Gray Sopark Mills, Gastonia, N. C.
W. N. Garrett, Hot Springs, N. C., clay and pottery.
Harris Granite Quarries Co., Dillsboro, N. C.
Harris Clay Co., Dillsboro, N. C., kaolin.
Hinson Brick Company, Charlotte.
Highland Park Mfg., Charlotte, gingham.
Hood Brick Co., Norwood, N. C., face brick.
P. H. Hanes Knitting Co., Winston-Salem, N. C., knit underwear.
Imperial Furniture Co., Statesville, N. C.

Imperial Mills, Belmont, N. C., combed yarns.
 Interstate Milling Co., Charlotte, flour.
 Jordan Mfg. Co., Toecane, N. C., bobbins, spindles.
 Johnson Shoe Co., Jamestown, N. C.
 Kendrick Brick & Tile Co., Mount Holly, N. C.
 Leland Moore Paint Co., Charlotte.
 Leaksville Woolen Mills, Charlotte, blankets.
 Liggett & Myers Tobacco Co., Durham, N. C.
 Leak, Wall, McKee Mills, Inc., Rockingham, N. C., bed tickings.
 Liddell Company, Charlotte, sawmills and cotton gins.
 The Mallie Mills, Winston-Salem, knit underwear, hosiery.
 The McAden Mills, McAdenville, N. C., yarns and colored goods.
 Majestic Manufacturing Co., Belmont, N. C., sea islands.
 J. N. McCauland & Co., Charlotte, dust collecting and conveying systems.
 Martinat Hosiery Mills, Valdese, N. C.
 The Mayo Mills, Mayodan, N. C., ribbed underwear.
 Mebane Bedding Co., Bebane, N. C., mattresses and springs.
 McLeas Manufacturing Co., Bessemer City, N. C., ducks and damasks.
 North Carolina Granite Corp., Mount Airy, N. C.
 National Yarn Mills, Belmont, N. C.
 George E. Nissen & Co., Winston-Salem, wagons.
 Oliver Quartz Co., Charlotte, talc and quartz.
 Pee Dee Manufacturing Co., Rockingham, N. C., plaids and
 Parks-Cramer Co., Charlotte, humidifiers.
 Park Manufacturing Co., Charlotte, elevators.
 The Pauline Hosiery Mills, Valdese, N. C.
 Parsley & Tanner, Inc., Spindale, N. C., hosiery.
 Piedmont Wagon Co., Hickory, N. C.
 Phoenix Mills, Kings Mountain, N. C.
 Pauline Mills, Kings Mountain, N. C., tablecloths and napkins.
 Pomona Terra Cotta Co., Pomona, N. C., tile, sewer pipe, etc.
 Phos-Pho-Germ Mfg. Co., New Bern, N. C., peat and fertilizer.
 Queen Knitting Mills, Statesville, N. C., hosiery.
 R. J. Reynolds Tobacco Co., Winston-Salem, N. C.
 Roberdel Manufacturing Co., Rockingham, N. C., plaids and
 gingham.
 Reidsville Paper Box Co., High Point, N. C.
 Rankin Mills, Gastonia, N. C., yarns.
 Savage Brothers, Murphy, N. C., iron ore.
 R. L. Steel, Rockingham, N. C., clay and pottery.
 C. C. Smoot & Sons Co., North Wilkesboro, N. C., tannic acid,
 tanned hides, etc.
 Statesville Brick Co., Statesville, N. C.
 Southern Spar & Mica Co., Asheville, N. C., feldspar and mica.
 Standard Sand & Gravel Co., Lillington, N. C.
 Southern Ice Machine Co., Charlotte, refrigerating and ice mak-
 ing machinery.
 Stonecutter Mills Co., Spindale, N. C., gingham.
 Spindale Mills Co., Spindale, combed yarns.
 Spencer Mills, Spindale, combed yarns.
 Sanitary Bedding Co., Charlotte.
 Spiritine Chemical Co., Wilmington, N. C., pine oil.
 Simmond Manufacturing Co., Wilmington, N. C., hand stoker
 grates.
 Statesville Cotton Mills, Statesville, N. C., yarns, rope and twine.
 Statesville Brick Co., Statesville, N. C.
 Sterling Mills, Inc., Statesville, N. C., flour.
 Shoaf-Sink Hosiery Mill Co., Lexington, N. C.
 Southern Spindle & Flyer Co., Charlotte, N. C.
 Tomlinson Chair Mfg. Co., High Point, N. C.
 Terrel Machine Co., Charlotte, textile mill machinery.
 C. H. Turner, Statesville, N. C., pony sawmill.
 Textile Industrial Institute, Spartanburg, S. C.
 Taylor Knitting Co., Hickory, N. C., hosiery.
 Tryon Chemical Co., Tryon, N. C., soaps and softeners.
 A. C. Tuxbury Lumber Co., Charleston, S. C., "Quickbuilt" homes.
 Tar Heel Mica Co., Plumtree, N. C., mica and mica products,
 mica lampshades.
 Talc Products Co., Glendon, N. C., talc and talc products.
 Universal Auto Co., Winston-Salem, automobile battery.
 Valdeese Mfg. Co., Valdese, N. C., hosiery yarns.
 Well Brick Co., Goldsboro, N. C.
 White Furniture Co., Mebane, N. C.
 Washington Mills, Winston-Salem.
 Waldensian Hosiery Co., Valdese, N. C.
 Waldensian Swiss Embroidery Co., Valdese, N. C.
 Waldensian Paper Box Co., Valdese.
 Wilmington Iron Works, Wilmington, shipbuilding, foundry work.
 J. Zagora Mfg. Co., Charlotte, machinery parts.

HOWARD F. CLARK.

McClellanville and Santee Railroad Chartered.

The McClellanville and Santee Railroad Co., of McClellanville, S. C., has been chartered with a capital stock of \$50,000 to \$100,000. The plans of the company according to the petition filed with the Secretary of State call for operation of a railroad from McClellanville in Charleston County to Jamestown in Berkeley County, approximately 20 miles. The incorporators are Mrs. J. C. Johnson, and Ira Johnson of Baltimore, Md., and Richard M. Loftin, of McClellanville, S. C.

New Ship Line to Open in New Orleans.

New Orleans, La., September 16—[Special.]—The Ucatan Ship and Trading Co., 1205 Old Hibernia Bank Bldg., beginning Oct. 1 will inaugurate monthly sailings to Campeche, Laguna, Frontera and Puerto, Mexico. The first sailings will be to Campeche and Laguna and will later be extended to include the other ports. Henry C. Drefus will handle the local affairs of the company.

Would Build an Interurban Line.

Fred W. Mally, Secretary.

LAREDO CHAMBER OF COMMERCE, Laredo, Texas

Owing to the rapid development of the new oil field down the Rio Grande River, in the irrigation territory from Laredo, it has occurred to us that there is now a splendid opportunity for building an interurban line from Laredo to this new oil field, as well as traversing the great irrigation district between Laredo and the oil field.

Our Chamber of Commerce would therefore like to get in touch with the important corporations which are building interurban lines.

Week's Car Loadings Largest Since Last December.

An increase, compared with the previous week, of 892 in the number of cars loaded with revenue freight during the week ended September 4, is shown by reports received by the Car Service Division of the American Railway Association. The total for the week was 830,601 cars. This is the largest week's loading since December 11, 1920, and represents the fifth consecutive increase, but as compared with the corresponding week of 1920 it shows a loss of 131,932 cars.

The total car loading since January 1, this year, has been 25,760,159 cars as compared with 29,973,864 in 1920.

Increased Net Earnings of the Railroad.

Reports filed with the Interstate Commerce Commission show that the net railway operating income of the railroads during July amounted to \$69,485,000, an increase of \$17,000,000 as compared with June and more than they have earned in a month since last October. The roads covered by these figures represent over 235,000 miles of line. This net income it is observed would represent an annual rate of return of 4 1/2 per cent instead of 5 1/2 to 6 per cent as estimated in the Transportation Act.

Building Extension to Car Line.

Princeton Power Co., S. T. Evans, Gen. Mgr., Princeton, W. Va., advise MANUFACTURERS RECORD: "This Company is building an extension to its car line 1 1/4 miles to the western end of Graham, Va. Financing has been done by the issue of 6% preferred stock and sold to the citizens who benefit by the extension. All material has been purchased and work is in progress". The company recently increased its capital from \$100,000 to \$200,000.

Surveying for New Road in Southern Texas.

Survey is now under way for a new railroad to run from San Antonio to Sonora, in Sutton County, Texas, according to recent announcement of Charles A. Mason of San Antonio, Secretary of the San Antonio, Rock Springs and Western, which is the title of the new road. The route of the road will be via Medina, Leakey and Rock Springs, thence to Sonora. Construction is expected to begin about Jan. 1.

\$2,000,000 Hotel to be Erected in Augusta.

Augusta, Ga., September 16—[Special.]—It has been announced by W. D. Hewitt, of Hewitt & Ash, architects of Philadelphia, and Michael Weller, vice president of the Weller Construction Co., Washington, that plans have about been completed for the rebuilding of the Hampton Terrace Hotel and that work will commence around November 1. The hotel will contain 350 rooms and cost approximately \$2,000,000. James U. Jackson, of this city, has been working on the project for many months and the success of the venture is now assured, definite arrangements for financing having been completed and other plans placed in readiness.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane Plants, Stations, Etc.

Tenn., Nashville — Hangars — Tennessee National Guard with co-operation of U. S. War Dept. have under construction 2 hangars, housing capacity 6 or 8 planes. (Lately noted to erect hangars at Blackwood Field.)

Bridges, Culverts and Viaducts.

Ala., Marion—Perry County will build concrete bridge over Rice Creek; bids opened; W. T. Harris, Chrmn. Court County Commsr.

Ark., Glenwood—Geo. Lawless, Glenwood, and M. E. Tolleson, Kirby, Ark., interested in building steel bridge across Caddo river; bids until Oct. 12.

Ark., Pine Bluff—Jefferson County Free Bridge Comsn. plans extensive repairs and improvements to bridge; cost \$79,000.

Ark., Rosboro—Caddo Lumber Co., W. R. Smith, Prest., will build 25 wooden bridges and steel bridge.

D. C., Washington—Dist. Commsr. may build 3 bridges; bridge over Rock Creek, \$180,000; bridge on Connecticut Ave., \$380,000 and draw bridge over Eastern branch at Benning road, \$470,000.

Fla., Bradenton—Manatee County let contract to J. R. Chambliss, Tampa, Fla. to build Cortez-Anna-Maria bridge; several miles long. (Lately noted.)

Fla., St. Petersburg — Pinellas County Commsr., Clearwater, Fla., granted permit to International & Realty Associates to construct bridge over Boca Ceiga Bay from point south of Davista to St. Petersburg beach.

Fla., Titusville—Brevard County sold \$175,000 bonds to build bridges and construct roads in Dist. 6. Address County Commsr.

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will build concrete bridge and approaches carrying Philadelphia road over Herring Run; 80-ft. span; low bidder Empire Engineering Co., 216 E. Lexington St., at \$48,483.50. (Lately noted inviting bids.)

Md., Creagerstown—Frederick County let contract to Lincoln G. Dinterman, Walkersville, Md., to build bridge over Hunting Creek on Lewiston-Creagerstown road; concrete with steel girdings.

Miss., Grenada—Dulweber Land & Timber Co. will build bridges.

Miss., Louisville—Winston County will build bridges; bids until Oct. 3; B. M. McCully, Clk. Supvrs. (See Machinery Wanted—Bridge Construction.)

Miss., Macon—Noxubee County will build

wooden bridge over Paler Creek; bids until Oct. 3; Jno. A. Tyson, Chancery Clk. (See Machinery Wanted—Bridge Construction.)

Miss., Meridian—Lauderdale County let contract to E. M. Clayton, Lockhart, Miss., to build steel bridge to span Lost Horse Creek; contract for material to, Austin Bros. Bridge Co., Atlanta, Ga.

N. C., Charlotte—Mecklenburg County let contract to Atlantic Bridge Co., Roanoke, Va., to build bridge over Stony Creek; 125-ft. long with 18-ft. roadway.

N. C., Charlotte—Mecklenburg County will sell \$75,000 bridge bonds; F. M. Gresham, Clk., Commsr.

Okla., Wagoner—Wagoner County plans to complete steel bridge across Vedigres river; cost \$8,000 to \$10,000. Address County Commsr.

Tenn., Columbia—Maury County let bridge contracts as follows: J. R. Shackelford, Mt. Pleasant, Tenn., to build 2 bridges over Baptist branch; Nicholson & Andrews, Columbia, Tenn., bridge over Lytle Creek. (Lately noted inviting bids.)

Va., Bristol—City of Bristol, Va., and City of Bristol, Tenn., will build bridge over Beaver Creek on State St.; bids opened Sept. 20; S. G. Keller, City Mgr., Bristol, Va.; G. P. Beidleman, Commr., Bristol, Tenn. (See Machinery Wanted—Bridge Construction.)

Va., Rockymount—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to J. E. Lane, at \$6,035 to build steel bridge over Chestnut Creek, Franklin County, Va. Project No. 90. (Lately noted inviting bids.)

Canning and Packing Plants.

Fla., Bartow—Gulf Fruit & Packing Co., organized with \$100,000 capital.

Fla., Fort Lauderdale—Fort Lauderdale Citrus Growers' Assn., will establish packing plant.

Fla., Zephyrhills—Zephyrhills Vegetable Growers' Assn., Capital \$10,000, incptd. with Atherton W. Rogers, Prest.; Loren E. Nicholson, V.-P.

Tex., Port Arthur—Gulf Refining Co., is reported planning to construct \$1,000,000 case and canning plant.

Clayworking Plants.

Tenn., Jellico—Bricks—Jellico Fire Brick Co., capital \$100,000, incptd. by Peter Zechini, Prest.; Z. D. Baird, V.-P.; Frank L. Smith, Secy.-Treas.; increasing kilns capacity; installing machinery to mfr. fire, buff face and common brick.

Tenn., Knoxville—Bricks—Riverside Brick & Tile Co., incptd., with J. W. Dooley,

Prest.-Mgr.; M. D. Dooley, V.-P.; R. P. Black, Secy.-Treas.; has established plant with daily output of 25,000 bricks. (Lately noted.)

Coal Mines and Coke Ovens.

Ala., Blocton, Route 1.—Bonnie Coal Co. organized with William Jones, Prest.-Mgr., Tuscaloosa, Ala., will develop 1000 acres coal land, estimated output from 350 to 500 tons; install mining mch.; C. C. Huckaby, Const. Engr., Blocton. Lately noted. (See Machinery Wanted—Engine.)

Ky., Ashland—United Collieries, organized with Ben E. Tate, Prest.-Mgr.; L. G. Byrne, Secy.; R. D. Davis, Treas. (Lately noted incptd., capital \$100,000.)

Ky., Yerkes-Colwell Blythe Coal Co. (lately noted incptd.) organized with S. C. Colwell, Prest.-Secy.; M. H. Blythe, V. P., Secy., and Mgr.; will develop 35 to 50 acres; daily output 100 tons; install mch., probably in January 1922; address proposal to Goodman Mfg. Co., Chicago, Ill. (See Machinery Wanted—Mining Machinery.)

Tenn., Knoxville—Hot Blast Coal Co., capital \$15,000, incptd. by W. T. Poole, J. E. Wood and O. J. Thornton.

W. Va., Charleston—Acmaroan Corp., capital \$5,000,000, organized by John B. Akers and E. G. Anderson, both Charleston; N. L. Hall, 16 East Broad St., Columbus, D.

W. Va., Huntington—Block Coal Sales Co., capital \$50,000, incptd. by H. D. Hatfield, H. C. Duncan, Jr., and Homer E. Holt.

W. Va., Mount Hope—Dartmont Coal Co., increased capital from \$75,000 to \$150,000.

W. Va., Wheeling—Aetna Development Co., 57-12th St., capital \$150,000, incptd. by Charles Sonneborn, John E. Stevenson and Edwin F. Kline.

Concrete and Cement Plants.

Tex., Rotan — Cement Plaster — Patton Cement Plaster Co. (lately noted incptd. capital \$350,000), organized with J. W. Patton, Prest.; E. W. Mabon, Secy.-Treas., will erect 75x300-ft. elevator, and 75x150-ft. dirt shed; sheet iron sides and top; install mch.; present capacity 400 tons gypsum, 8 keettle of plaster, each running 50 tons per 24 hrs.; construction by day labor; company to employ Const. Engr. (See Machinery Wanted—Plaster Machinery.)

Cotton Compresses and Gins.

Tenn., Halls—Planters' Co-Operative Gin Co., incptd. with \$8,000 capital.

Tex., Quanah—Hutchins Gin Co., capital \$36,000, incptd. by O. D. Hutchinson, G. A. Simmons and R. R. Gilliland.

Tex., Quanah—Lanier Co., capital \$15,000, incptd. by G. A. Simmons, R. R. Gilliland and J. W. Lanier.

Tex., Waco—Waco Cotton & Reginning Co., capital \$22,000, incptd. by Fleg Zimmerman, C. M. and J. D. Phillips.

Cottonseed-Oil Mills.

Miss., Shelby—Bollivar Cotton Oil Co., capital \$75,000, incptd. by L. B. Wilkinson and C. T. Jacobs; all Bollivar, Tenn.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Drainage Systems.

Fla., Bradentown — Manatee County Comms., Robt. H. Roesch, Clk., let contract for 6 mi. drainage canals in Manatee-Okech Dist.; reclaiming \$700 acres.

Mo., Butler—Bates County Comms. will extend drainage ditch about 15 mi., proposes to deepen present ditch, construct more laterals and extend outlet; reclaim about 25,000 acres.

Mo., Nevada — North Vernon County Comms. contemplate establishing drainage district along Little Osage and Marmaton rivers; John H. Nolen, Jefferson City, Mo., preparing plans.

Mo., Trenton — Honey Creek Drainage Dist., R. E. Cavanaugh, Secy., construct drainage system; 422,066 yds. excavation, 82 acres clearing; bids until Sept. 19; M. H. Mooney, Engr. (See Machinery Wanted—Drainage.)

Tex., El Paso—City, R. C. Semple, Mayor pro tem, will vote Oct. 11 on \$125,000 drainage bonds. (Lately noted to vote Sept. 6.)

Electric Plants.

Ark., Gravette—H. D. Jenkins, Eureka Springs and Harrison, Ark., and R. A. Wilson, Harrison, contemplate establishing power plant.

Ark., Stuttgart—City contemplates constructing electric light plant. Address The Mayor.

Fla., Key West—Key West Electric Co., B. L. Grooms, Mgr., let contract to Stone & Webster, Gen. Mgrs., Boston, Mass., at \$150,000 to improve plant; construct 66-ft. 6-in.x30 ft. brick and steel addition to power house; install 500 K. W. Diesel engine generator unit; develop 750-H. P. (Lately noted.)

Ky., Lexington—Lexington Utilities Co., J. P. Pope, Gen. Mgr., Limestone St. and London Ave., let contract to Combs Lumber Co., at \$11,679 to construct 20-ft. fireproof extension to present light and power station; contract let for boiler, stoker, piping, etc., costing \$100,000; Ford, Bacon and Davis, Archt., New York. (Lately noted.)

Ky., Louisville—Antler Electric Co., Incptd. by Wm. F. A. Thomas, R. L. Ogden and E. D. Laughlin.

Mo., Memphis—City will install unit in electric light plant; voted bonds. Address The Mayor.

N. C., Hendersonville—Blue Ridge Power Co., of Henderson County applied for franchise to furnish electric power to city.

N. C., Morganton—City, W. J. Hallyburton, Clk., will issue \$25,000 light and water bonds.

N. C., Pilot Mountain—City contemplates constructing power plant; may vote on bonds. Address The Mayor.

N. C., Statesville—Mills Electric & Battery Service Co., Bristol block, Court St., will occupy building to be erected by T. N. McElwee.

Okla., Ardmore—State Board of Public Affairs, Geo. F. Clark, Chrmn., Oklahoma City, will construct power house and septic tank at Confederate Home; bids opened; Chas. P. Neider, Archt., Empress Theater Bldg., Oklahoma City.

Okla., Lahoma—Town Board, Mrs. Evalyn Hiatt, Prest., let contract to Lahoma Motor Co., at \$4,000, to install lighting system. (Lately noted.)

S. C., McCormick—City granted franchise to Paul B. Wilson Electrical Machine Works to furnish electric power.

Tex., Memphis—City issued \$65,000 electric light bonds. Address The Mayor.

Tex., Timpson—City, F. R. Bussey, Mayor, voted \$30,000 electric light bonds. (Lately noted to vote.)

Tex., Whitney—City, W. D. Nuckolls, Mayor, let contract to W. T. Barton, at \$18,000, to construct electric plant at water station; brick building; install 2 oil engines for continual service; develop 75 H. P. (Lately noted.)

Fertilizer Factories.

Fla., Jacksonville—Watts-Jay Co., Incptd. by Lemuel P. Jay, Prest.; Jno. N. Watts, Jr., Secy.—Treas.

Flour, Feed and Meal Mills.

Ark., Walnut Ridge—Arkansas Mill & Grain Co., will establish flour mill. (Lately noted to erect addition.)

Fla., Lakeland—Non-Acid Fertilizer & Chemical Co., capital \$600,000, Incptd. with C. W. Deen, Prest.; H. E. Memminger, V. P. and Treas.; T. L. Wilson, V. P. and Treas.

Tenn., Jackson—Model Mill, H. W. Monroe, V. P. and Gen. Mgr., Sparta, Ill., will erect 4-story and basement frame with concrete foundation building; install machinery; 24-hour capacity 200-bbls flour and 200-bbls corn-meal.

Tex., Canadian—Chamber of Commerce, T. F. Johnson, Southwest National Bank, Representative, interested in establishing flour mill.

Tex., New Braunfels—Planters & Merchants Mill will erect flour mill; hydro-electrically operated. (See Hydro-Electric Plants.)

Foundry and Machine Plants.

Fla., Jacksonville—Dairy Supplies—Seminole Dairy & Supply Co., capital \$25,000.

Fla., Orlando—Cement Block Machinery—Southern Cement Block Machine Co., Samuel Lindsey, Inventor, plans to establish plant to mfr. cement block mchy.

Md., Baltimore—Carburetors—Floatless Carburetor Co., 916 Munsey Bldg., organized with R. Contee Rode, V. P. plans building \$250,000 plant for mfr. of patented carburetors. (Lately noted Incptd., capital \$100,000.)

Mo., St. Louis—Steel Pipe—Midwest Pipe Inc. Co., A. G. Stoughton, Prest., let contract to H. O. Hirsch & Co., Wainwright Bldg. to erect 1 story 40x15-ft. factory addition; Klipsstein & Rathman, Archts., Chemical Bldg.

Okla., Tulsa—Pipe—Mid-Co Pipe & Supply Co., capital \$25,000, Incptd. by Sam and Freda Novak, A. E. Montgomery.

S. C., Greenville—Pumps—Harris-Brockman Mfg. Co. increased capital from \$6,000 to \$200,000; install additional 6-in. hollow spindle turret lathe, vertical turret drilling and boring machine and special tools for mfr. hydropneumatic pumps, displacement type, daily capacity 10 to 20. (See Machinery Wanted—Lathe; Drilling and Boring Machine.)

Tex., Harrisburg—Machinery—Harrisburg Machine Co., capital \$15,000, Incptd. F. D. French, Gus J. and R. A. Fenzi.

Va., Richmond—Plumbers Supplies, etc.—James Robertson Mfg. Co., capital \$350,000, organized with Louis Miller, Mgr., will mfr. plumbers and gas fitters supplies.

Gas and Oil Enterprises.

Ark., Camden—Refinery—H. M. Jones, El Dorado, Ark., will erect 2-unit oil refinery, with capacity of 500-bbls.

Fla., Jacksonville—Petroleum Products Co., capital \$25,000, Incptd. by B. E. Bennett, Prest.; H. R. Simcox, Secy.; J. G. Woods, Treas.

Ga., Augusta—Richmond Oil & Gas Co., capital \$50,000, Incptd. by W. S. Brand, J. H. and J. W. Flythe.

Ky., Bowling Green—Refinery—E. J. Riggs will establish 300-bbl. daily capacity refinery; expend \$40,000 for equipment and pipe lines. (Lately noted contemplated.)

La., New Orleans—Mexican Oil & Construction Co., capital \$1,000,000, Incptd. by Artuhr Koerner and Edw. N. Stoll.

Md., Baltimore—Consolidated Gas, Electric Light & Power Co., Herbert A. Wagner, Prest., Lexington Bldg., increased capital from \$33,000,000 to \$50,000,000. (Lately noted contemplated.)

Okla., Anadarko—Anadarko Producers Co., C. E. Thompson, Prest., has been granted franchise to supply natural gas; will install plant.

Okla., Blackwell—Cortez Oil Co., let contract to W. E. McCulley, Hominy, Okla., to construct 20 mi. 10-in. pipe line; daily output 25,000,000 to 30,000,000 cu. ft. gas; install \$230,000 equipment; contract let; City Engr. Jones. (Lately noted.)

Okla., Medford—City granted gas franchise to Blackwell Oil & Gas Co. Address The Mayor.

Okla., Muskogee—Refinery—Oklahoma Producing & Refining Co., Tulsa, Okla., plans expending \$150,000 to enlarge and improve refinery; increase still capacity to 10 stills; install battery of towers on stills to increase gasoline yield; increase plant capacity 20,000 bbls. monthly; increased storage capacity to 360,000-bbls. crude oil and 110,000-bbls. refined products.

Okla., Robberson—Magnolia Petroleum Co., Dallas, Tex., will lay 15 mi. 8-in. gas line from Blackhorn schoolhouse in Fox Dist. to Robberson gas field.

Okla., Tulsa—John & Peterson Oil Corp., capital \$150,000, Incptd. by Willard John, J. P. Peterson and Chas. P. Yaden.

Tenn., Memphis—Colliston Oil & Gas Co., capital \$150,000, Incptd. by R. H. Hammond, Moore Moore and W. Baker Sivley.

Tex., Groesbeck—Magnolia Petroleum Co., Dallas, Tex., purchased 175-acre site for tank farm; contemplate constructing pipe line from this field to Gulf.

Tex., Houston—North Dayton Oil Co., capital \$50,000, Incptd. by Yervant Masadian, Harry Holden and Robt. S. Gaston.

Tex., Mexia—Refinery—Texas—Mexia Refining Co., Telephone Exchange Bldg., let contract to Chas. V. Miller, Fort Worth or Mexia, Tex., to construct \$250,000 plant with daily capacity of 3,000-bbls. crude, and for \$150,000 machinery; lay about 5 mi. 4-in. pipe line, and 2 mi. 3-in. line. Lately noted. (See Machinery Wanted—Boilers; Stills; Tanks; Agitator; Boxes.)

Tex., San Antonio—Pipe Line—Grayburg Oil Co., F. L. Thompson, is constructing 25 mi. pipe line from wells in Somerset field to city. (Lately noted Incptd., capital \$100,000.)

Hydro-Electric Plants

Tex., New Braunfels—Planters & Merchants' Mill will construct dam and power house in connection with erecting flour mill. (See Flour, Feed & Meal Mills.)

Ice and Cold-Storage Plants.

Fla., Fort Pierce—Vero Ice Co. will improve plant, increase daily capacity to 40 tons; mchy. purchased.

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Fla., Jacksonville—St. Lucie Ice Co. has under construction concrete building to accommodate 40 ton addition to plant, including tank and storage rooms each 30x60-ft., 585 ice cans of 300 lbs.; mch'y. purchased.

Fla., Sarasota—Sarasota Ice & Cold Storage Co. contemplates extensive improvements, plans to double plants capacity.

Fla., South Palm Beach—H. C. Daniels, Box 5, has contract for construction of ice plant; install pumps, motors, steel tanks, etc. (See Machinery Wanted—Pumping Equipment; Motors.)

Fla., Tampa—Wilson & Co. will erect \$10,000 cold storage plant, including warehouses, platforms, sheds and tracks for refrigerators cars, used as distributing point.

N. C., Charlotte—W. F. Anderson let contract to J. L. Crouse to erect 1 and 2 story and basement 33x242 ft. refrigerating plant.

Tenn., Clarksville—Clarksville Ice & Coal Co. will rebuild plant burned at loss of \$50,000.

Tex., Dallas—City Ice Co., capital \$30,000, inceptd. by C. B. Hill, B. H. Black and Charles H. Sneed.

Va., Norfolk—Anheuser-Busch, Inc., St. Louis, Mo., contemplates making alterations and erect addition to ice plant, improvements include boilers heaters, salt water connections together with 200 ton ice making plant; estimated cost \$250,000; Ophuls, Hill & McCreery, Inc., Const. Engrs., 114 W. 42nd St., New York City; Mr. Nimmo old, Gen. Mgr., Norfolk.

Land Developments.

Fla., Titusville—Titusville Beach Co., capital \$25,000 inceptd. by Jno. R. Walker, Prest., Harry Wilson, Secy.; E. J. Stewart, Treas.

Ga., Dublin—Hillandale Nursery Co. inceptd. by A. L. and Geo. B. Davis, and E. P. Lugand.

Md., Bay Ridge, P. O. Baltimore—Thomas T. Boswell, Prest. Mineral State Coal Co. Munsey Bldg.; Herman G. Odenwald, Thos. R. Bond, E. T. Boswell; all Baltimore; formed syndicate; acquired Bay Ridge, on Chesapeake Bay; will develop as water front site for summer homes.

Mo., Jefferson City—Capital Building Comsn., A. A. Speer, V.-P., will improve capital grounds: E. Swarwant, Landscape Archt., New York.

N. C., Hamlet—Cognate Fruit Farms Co., capital \$100,000, inceptd. by H. T. Prosser, E. A. Lewis and C. C. Hudnell.

N. C., Winston-Salem—City, Jas. G. Hanes, Mayor, will vote Oct. 25 on \$100,000 park and playground bonds.

S. C., Spartanburg—City, Park Comsn., will develop Cleveland Park; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.; W. N. Willis, Civil Engr., Spartanburg.

Tex., El Paso—City, R. C. Semple, Mayor Pro Tem, will extend and improve park; vote Oct. 11 on \$100,000 bonds. (Lately noted to vote Sept. 6.)

Tex., Houston—Driscoll Land Co., inceptd. by Jno. M. Driscoll, W. R. Goyen and J. W. Hutchinson.

Va., Lynchburg—City plans developing portion of 35-acre site for Riverside Park; construct drive and swimming lake. Address The Mayor.

W. Va., Wheeling—Landscape Service Co., capital \$50,000, inceptd. by John Maguire and Frank H. Wildern.

Lumber Manufacturing.

Fla., Tampa—Wilkins—Lewis Lumber Co.,

capital \$50,000, inceptd. with V. D. S. Wilkins, Prest.; P. T. Lewis, Secy.

Miss., Neshoba County—Burnside-Landon Timber Co., capital \$750,000, organized with P. M. Ikeler, Prest., Moselle, Miss.; R. N. Steadman, V.-P. and Gen. Mgr.; G. M. McWilliams, Secy.-Treas.; both Hattiesburg, Miss.; purchased 25,000 acres land in fee, 200,000,000 ft. of timber of which 60,000,000 ft. is hardwood.

Okla., Okmulgee—Okmulgee Lumber Co., capital \$100,000, inceptd. by L. L. and H. Mays, both Okmulgee; J. M. Matthews, Beggs, Okla.

Va., Damascus—Damascus Lumber Co., Geo. S. Boucher, Agr., plans not decided as to rebuilding plant burned at loss of \$50,000; interested in mch'y. including band mill, band resaw, edger and lathe mill. (See Machinery Wanted—Saw Mill Equipment.)

Metal-Working Plants.

Fla., Tampa—Scales, etc.—Standard Scale & Fixture Co., capital \$50,000, inceptd. with A. L. Franklin, Prest.; James A. Milber, Treas. and Gen. Mgr.

Md., Baltimore—Sheet Metal—Phillip-Kell Co., Holliday and Center Sts., reported to erect \$50,000 plant.

Md., Baltimore—Sheet Metal—Lyon, Conklin & Co., 13 Balderson St., reported to erect plant containing about 100,000 sq. ft. space.

Mo., St. Louis—Enameling—Standard Stamping Co., Geo. Weigand, Prest., 2000 N. Broadway, let contract to A. H. Haeseler Constructing Co., Wainwright Bldg., to erect 1 story 132x107-ft. enameling plant; Klinstein & Rathman, Archts., Chemical Bldg.

Mo., St. Louis—Cables and Wires—Standard Underground Cable Co., Jos. W. Marsh, Pittsburgh, Pa., let contract to Widmer Engineering Co., Syndicate Trust Bldg., to erect 1 and 2 story, 525x300 ft. mfg. plant. (Lately noted to erect plant.)

Tenn., Chattanooga—Metal Beds—Heron Metal Bed Co., Main and Chestnut Sts., will expend \$20,000 on plant improvements.

Miscellaneous Construction.

Fla., Sulphur Springs, Tampa, Fla.—Swimming Pool, etc.—J. Willard Sherman contemplates constructing swimming pool, install porcelain or wire glass shutters, toboggan slides, etc. (See Machinery Wanted—Swimming Pool, etc.)

Fla., West Palm Beach—Sea Wall—City and Palm Beach County Comms. will construct 1400 lin. ft. reinforced concrete seawall, approximate cost \$12,000; Karl Riddle, Engr.

Md., Baltimore—Pier—City will expend \$6,830 on improvements and repairs to recreation pier; Peter Tome, Comptroller; J. Frank Crowther, Inspector of Buildings.

Md., Baltimore—Bulkhead—Treasury Dept. at U. S. Coast Headquarters, Darby Bldg., Washington, D. C., will construct creosoted wood sheet pile bulkhead at Coast Guard Depot; bids until Sept. 28. (See Machinery Wanted—Bulkhead.)

Mo., Springfield—Mausoleum—Southwestern Mausoleum Co., Little Rock, Ark., plans to erect \$200,000 mausoleum, capacity 500 vaults.

Okla., Chickasha—Mausoleum—Oklahoma Mausoleum Builders and City Cemetery Board plans erecting mausoleum at Rose Hill Cemetery of concrete, stone, marble and bronze construction.

Okla., Oklahoma City—Channel—City plans voting Oct. 15 on \$750,000 bonds for straightening and deepening river; Mike Donnelly; Commr. of Accounting and Finance.

S. C., Columbia—Lake—E. T. Cato contemplates constructing dam across Smith's branch forming 26 acre lake for pleasure resort at Eau Claire; also build pavilion, etc.

Tenn., Columbia—Memorial Monument—R. O. Darden let contract to Dean Marble Co. to construct 12 ft. high hero memorial monument on Fogg High School grounds.

Tex., Beaumont—Docks—Wharf and Dock Comsn. contemplate expending from \$200,000 to \$250,000 on improvements to docks.

Tex., Houston—Dredging—Major L. M. Adams, Engr. in charge of Galveston Dist. dredge turning basin of Houston Ship Channel, change depth from 25 to 30 ft., O. F. Holcombe, Mayor.

Va., Lynchburg—Swimming Pool—City plans constructing swimming pool in Riverside Park. Address The Mayor.

Miscellaneous Enterprises.

Ala., Anniston—Publishing—Southern Opportunities Co., capital \$15,000, inceptd. with L. L. Crump, Prest.; John D. Bibb, Secy.

Ala., Glencoe—Potato Curing—W. M. Anderson will erect sweet potato curing house; plans with County Farm Demonstrator Brown.

Ala., Glencoe—Potato Curing—A. M. Sims will erect sweet potato curing house; plans with County Farm Demonstrator Brown.

Ga., Atlanta—Publishing—Southern Republican Publishing Co., capital \$25,000, inceptd. by D. K. Roberts, W. O. Ballard and John Randolph.

Ga., Augusta—Fire Apparatus—City let contract to American LaFrance Fire Engine Co., Elmira, N. Y. for additional fire fighting apparatus. (Lately noted.)

Ga., Dalton—Laundry—Dalton Steam Laundry purchased by E. F. and J. L. Lindsey, Florence, Ala., will improve plant, install additional mch'y. for dry cleaning and dyeing.

Ky., Irving—Laundry—Estill Laundry Co., capital \$15,000, inceptd. by O. D. Tucker and E. S. Jones, both Hazard, Ky.; Max Meyer, Krypton, Ky.

Mo., Mexico—Printing and Binding—Confidential Bank Supply Co., let contract to Haggard & Slavens to erect 1 story 55x120-ft. fireproof building, tile with brick facing, concrete floor, Barrett roofing, estimated cost \$16,000; Ben C. Elliott, Archt.

N. C., Durham—Transportation—Highway Transportation Co., capital \$100,000, inceptd. by R. P. Reade, Nettie Fowler and Jones Fuller.

N. C., Winston-Salem—Laundry—City Memorial Hospital Comsn. will install additional equipment in laundry dept.; Dr. T. C. Redfern, Supt.

Okla., Healdton—Laundry—Healdton Star Steam Laundry, capital \$15,000, inceptd. by J. H. Langston, V. R. Humble and Dan Blackburn.

Okla., Pryor—Laundry—Pryor Steam Laundry, M. C. Hadley, Propr. will erect 40x80-ft. laundry building.

Okla., Tulsa—Publishing—Oklahoma Press, capital \$15,000, inceptd. by D. H. Ashton, Harold G. Cooke and Mather M. Enkes.

S. C., Spartanburg—Advertising—Southern Service Corp., capital \$20,000, organized with A. M. Jamison, Prest.-Treas.; F. M. Carlisle, Secy.

Tex., Houston—Incinerators—City, O. F. Holcombe, Mayor, let contract to Superior Incinerator Co., Dallas, Tex., at \$26,500 to construct two 40 ton, 24 hr. incinerators. (Lately noted.)

Tex., Texas City—Transportation—Reitan Transportation Co., capital \$10,000, inceptd. by Peter Reitan, Thomas W. Blake and H. B. Bemis.

W. Va., Beckley—Engineering, etc.—Consolidated Engineering & Construction Co., capital \$25,000, inceptd. by H. F. Wilfong, G. C. Seibt, J. A. Graft.

W. Va., Charleston—Dry Cleaning—Parisian Dry Cleaning Co., capital \$75,000, inceptd. by J. A. Fisher, Ben Moore and Charles Cohen.

Miscellaneous Factories.

Ark., Texarkana—Churnery—H. A. Reed, Southern Soil Improvement Co., Dallas, Tex., interested in installing churnery, costing \$20,000.

D. C., Washington—Ice Cream—Carry Ice Co., 1337 D. St., S. E., let general contract to Fred. Drew Co., Woodward Bldg. to construct 2-story 79x59 ft. ice cream plant Vogt & Diden, Archts., Home Life Bldg. (Lately noted.)

D. C., Washington—Bakery—White Rose Baking Co., capital \$30,000, inceptd. by W. S. Moore, C. R. Lanphear and Henry E. Bolt.

Fla., Chipley—Leather—Chipley Leather Mfg. Co., capital \$25,000, inceptd. with J. B. Guess, Jr., Prest.; W. H. Faust, Secy.-Treas.

Fla., Fort Lauderdale—Bakery—Olsson & Kelly have been awarded contract to erect bakery.

Fla., Fort Myers—Cigars—Jose Gonzalez & Co., Jose Gonzalez, Mgr., increased capital; will expend \$75,000 to erect 3-story and basement fireproof addition to plant to mfr. cigars; daily output 60,000; install elevators. (See Machinery Wanted—Elevators.)

Fla., Jacksonville—Shipping Cases—Richens Patent Egg Shipping Receptacle Co., capital \$100,000, inceptd. with A. T. Vinson, Prest.; F. C. Sawyer, Secy.-Treas.

Fla., Leesburg—Paper Pulp—Grass Fibre Pulp & Paper Corp. parent plant of \$1,000,000 corporation; W. F. Stovall, Prest.; E. R. Lacy, V.-P. and Gen. Mgr.; have leases on 21,000 acres saw grass land around Leesburg, and thousands additional acres in other parts of Florida; has plant under construction to mfr. paper pulp from saw grass; daily capacity 40 tons. (Lately noted contemplated.)

Fla., Tampa—Confectionery, etc.—Tibbetts Corner, capital \$25,000, inceptd. by D. S. Dunn, Prest.; T. W. McElvy, Secy.-Treas.

Fla., West Palm Beach—Creamery—Fairmount Creamery Co., capital \$50,000, inceptd. with Alf R. Nielsen, Prest.; J. W. Gooding, Secy.-Treas.

Ga., Savannah—Berman—Swain Co., capital \$10,000, inceptd. Moses and S. S. Berman and J. R. Swain, Jr.

Ky., Ashland—Drugs—Dixie Drug Co., capital \$10,000, inceptd. by Robt. J. Wuest and I. P. Watkins.

Ky., Corbin—Ice—Cream—Corbin Co., organized with W. S. Harkness, Prest.; D. A. Harkness, V.-P. and Mgr.; all Jellico, Tenn.; C. E. Perkins, Secy., Corbin; has established plant with daily capacity 500-gals. ice cream. (Lately noted inceptd., capital \$15,000.)

Md., Baltimore—Bakery—Chas. Raith, 2504 Pennsylvania Ave., will improve bakery; J. Franklin Nelker, Archt., Professional Bldg.

Md., Baltimore—Lard Substitutes—Cooknut Corp., W. R. Spruill, Prest., Paca and Lexington Sts., let contract to Chas. L. Stockhausen & Co., Gay & Water Sts., at \$85,000, to construct 3 and 4-story 104x56 ft. main building; and power house and machine shop; reinforced concrete. (Lately noted.)

Md., Baltimore—Bakery—Raymond C. Hehn, 651 W. Conway St., let general contract to Adam Kratz, 118 S. Carrollton Ave., to improve and erect addition to plant; John Freund, Archt., 1307 St. Paul St.

Md., Baltimore—Bakery—Gustav Hensel, 2111 Orleans St., acquired property; will improve for bakery.

Md., Baltimore—Clothing—L. Greff & Brothers, Leonard Greff, Prest., Eutaw and Redwood Sts., acquired 10,000 sq. ft. space at 1510 Harford Ave.; will mfr. clothing.

Md., Baltimore—Mattresses—John C. Woelfel, 1617 Eastern Ave., will expend \$25,000 to improve plant and erect warehouse.

Miss., Natchez—Chamber of Commerce interested in establishing creamery.

Mo., Jefferson City—Overalls—Star Clothing Mfg. Co., capital \$25,000, reorganized with Miss Myrene Houchin, and Mrs. Jas. Houchin; acquired holdings of Star Clothing Co.

Mo., West Plains—Milk Products—Ozark Milk Products Co. increased capital from \$50,000 to \$100,000.

Okla., Oklahoma City—Bakery—Smith Baking Co., 437 W. Park St., will construct 1 and 2-story 150x100 ft. brick and stone bakery; P. H. Anthony, Archt., 1109 Waldheim Bldg., Kansas City, Mo.

Okla., Woodward—Dairy Products—Woodward Dairy Products Co., capital \$25,000, inceptd. by Geo. H. Sweeney, Jack Farrier.

S. C., Newberry—Chamber of Commerce, J. W. Johnson, Prest., interested in establishing creamery.

Tenn., Chattanooga—Overalls—Bonney Overall Mfg. Co., 14 E. 14th St., organized by F. L. Underwood, H. B. Bonner and W. F. Stemper; purchased Bonney Co.

Tex., Alvin—Drugs—Red Cross Drug Co., capital \$10,000, inceptd. by E. C. Arno, W. S. Benson and J. J. Dodson.

Tex., Gorman—Explosives—Shell Torpedo Co. organized with Frank Kirk, Prest.; A. W. Samberson, V.-P. and Gen. Mgr.; Geo. Waldrup, Secy.-Treas.; is erecting plant on Savannah Creek; mfr. nitro-glycerine and other explosives; daily capacity 1,200 quarts.

Tex., Lubbock—Candy—Lubbock Candy Co., organized with R. H. Martin, Prest.; M. C. Wilhaite, V.-P. and Mgr.; Jas. B. Reed, Secy.-Treas.; leased brick building; install machinery to mfr. candy. Lately noted inceptd. (See Machinery Wanted—Botch-Warmer; Boxes; Papers; Cartons, etc.)

Tex., Pharr—Creamery—Valley Co-Operative Creamery Assn., C. H. Graham, Mgr., Edinburg, Tex., will construct 60x30 ft. brick building; install machinery to make butter. (Lately noted.)

Va., Buchanan—Creamery—Buchanan Produce Exchange, Rhodes G. Lockwood, Propr., let contract to A. J. Miller & Allen, to construct 2-story 40x24 ft. wooden frame with concrete floors main building; install creamery equipment to make butter, cheese, etc. Lately noted. (See Machinery Wanted—Creamery Equipment; Refrigerating Machines.)

W. Va., Man—Pepsi-Cola—Logan Pepsi-Cola Bottling Works, capital \$130,000, inceptd. by J. A. Long, Huntington; R. H. Williamson, Ona, W. Va.

Motor Cars, Garages, Tires, Etc.

Fla., High Springs—Motors—Priest—Bridges Motor Co. capital \$25,000, inceptd. by W. J. Priest, Prest.; R. L. Bridges, Secy.-Treas.

Fla., Safety Harbor—Filling Station—J. I. Friend will erect filling station, purchased site.

Ky., Glasgow—Motors—Joe B. Larrabee Motor Co., capital \$20,000, inceptd. by Henry O. and Joe B. Larrabee, W. A. Kinney.

Ky., Louisville—Garage—Williams Realty Co., J. W. Williams, Prest.-Mgr., will erect garage, capacity 70 cars; Gaffney & Epling, Archts.

Ky., Louisville—Garage—Third St. Garage, Albert Yost, in charge, let contract to General Construction Co. to erect 1 story and basement 150x200-ft. garage; B. B. Davis, Archt., Norton Bldg. (Lately noted.)

Ky., Louisville—Garage, etc.—Progressive Auto Service Co., 207 W. Broadway (lately noted inceptd.) organized with L. H. Prescott, Prest.-Mgr.; Ray I. Lynch, Secy.-Treas., will erect 2 story building in spring; install electric drills, lathe, air pumps and other general garage equipment. (See Machinery Wanted—Garage Equipment.)

Ky., Madisonville—Garage—W. J. Barnhill & Son will erect 2 story concrete garage; 66x160-ft.; install general garage equipment; John T. Waller, Archt., Hopkinsville, Ky.; D. J. Ernst, Jr., Const. Engr., care of W. J. Barnhill & Son, Madisonville. (See Machinery Wanted—Garage Equipment.)

Ky., Madisonville—Garage—W. J. Barnhill & Son will erect 2 story concrete garage; capacity 200 cars.

La., New Orleans—Garage—Frank E. Fithen leased 60x150-ft. site, will occupy 1 story, brick and metal garage building; to be erected by Ernest A. Carriere's Sons.

La., Shreveport—Garage, etc.—Hughes Bros' will erect 3 unit plant costing \$40,000, 1st unit under construction; repair automobiles and sales dept. for second-hand cars.

Md., Baltimore—Garage—Israel Hoffman and Huritz, Equitable Bldg., will erect 40x50-ft. addition and make alteration to garage \$10,000.

Md., Baltimore—Garage—Wm. C. Hipple let contract to Mason & Fox, Law Bldg. to erect 2 story 80x80-ft. garage addition; Robt. L. Harris, Archt., 11 W. Saratoga St.

Md., Easton—Garage, etc.—R. T. Bonham, Gen. Mgr. Shore Transit Line, Salisbury, Md., contemplates building garage and repair shop for the line.

Md., Baltimore—Clement L. Mumma, 1021 Broadway, let contract to Inglis & Co. to erect fifteen 1 story garages on 145x17-ft. site.

Mo., Clarence—Garage, etc.—Clarence Auto Co. rebuild garage and repair shop.

Mo., Kansas City—Filling Station—Kansas City Refining Sales Co. will erect 1 story 19x47 ft. filling station; Archer & Lloyd, Archts., 321 Reliance Bldg.

Mo., Kansas City—Garage—Midland Realty Co., Reliance Bldg., will remodel and erect 1 story 45x160-ft. addition to garage.

Mo., St. Louis—Garage—Louis Speebrick, 1317 Franklin Ave., let contract to H. O. Hirsch & Co., Wainwright Bldg., to erect 1 story 103x120-ft. garage.

N. C., Charlotte—Garage—Thompson & Richburg, 418 Piedmont Bldg., let contract to erect 2 story brick garage, cost \$12,000; B. W. Bartholomew, Const. Engr. (Lately noted.)

Okla., Guthrie—Motors—Bill Pugh Motor Co., capital \$25,000, inceptd. by Bill Pugh.

Guthrie; S. P. and J. T. Render, both Oklahoma City, Okla.

S. C. Gaffney — Automobiles — Gaffney Motor Co. let contract to J. H. Curry for excavation of building.

S. C. Greenville — Service Station — White-way Service Station, inctpd. by W. M. and W. T. Bull, S. B. Gerald.

Tenn., Knoxville — Filling Station — Quick Service Station, capital \$10,000, inctpd. by J. C. and D. K. Whisman, F. W. Wrinkle.

Tex., Dallas — Garage — Postoffice Garage, John T. and Jesse H. Jones, Proprs., Houston, Tex., will erect 2 story and basement garage.

Tex., Houston — Automobile Supplies — Auto Owners' Supply Co., capital \$20,000, inctpd. by J. T. Jamison, Marshall and Yale Hicks.

Tex., Houston — Motors — Roundtree — Abbot Motor Co., capital \$70,000, inctpd. by W. M. Roundtree, Thomas F. Abbot and P. B. Taylor.

Tex., Rosenberg — Motors — Kiefner Motor Co., capital \$10,000, inctpd. by Tom. Randolph, H. A. Kiefner and E. K. Ewing.

Tex., San Benito — Automobiles — Graham Valley Buick Co., capital \$50,000, inctpd. by John W. and J. A. Graham, John T. Lomax.

Va., North Danville — Garage — Powell Motor Co. will occupy 45x100-ft. brick building; Guy F. Walton let contract to Anderson-Hunter Construction Co. at \$10,000.

W. Va., Bluefield — Garage, etc. — E. L. Bailey, Prest., Bailey Lumber Co. will erect 4 story 83x121-ft. garage, display room and office building; Garry & Sheffey, Archts., K. & M. Bldg.

Railway Shops, Terminals,

Mo., Eldon — Chicago, Rock Island & Pacific Ry. Co., C. A. Morse, Ch. Engr., Chicago, Ill., let contract to T. S. Leake & Co., Chicago, Ill., to construct 10 additional stalls to roundhouse; \$75,000. (Lately noted.)

Road and Street Construction.

Ala., Birmingham — City will construct concrete gutter and asphaltic concrete paving; Improvement Ordinance 133-D; bids opened; Julian Kendrick, City Engr.

Ala., Gadsden — City plans street paving on Haralson Ave., 11th, Bay, Cherry and other Streets; cement curb and gutters on 7th Ave., etc.; cost \$155,574; asphaltic concrete. Address The Mayor.

Ala., Tusculumbia — State Highway Comsn. struct 14.67 mi. road between Tusculumbia and Lawrence county line; portion of Detatur-Tusculumbia road; bridges and culverts; bids until Oct. 17; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Road Construction.)

Ark., Little Rock — City let contract to Moreno-Burkham Construction Co. to construct 5,600 sq. yds. asphaltic concrete paving on concrete base; \$24,000 available; Jas. H. Rice, City Engr.

Ark., Newport — City will pave streets. Address Engr. Lawrence, North Little Rock, Ark.

Fla., Bradentown — Manatee County will construct 50 mi. roads east of Manatee and Oneco; voted \$350,000 bonds; W. P. Frier, Chrmn. County Commrs. (Lately noted to vote.)

Fla., Brooksville — Hernando County will construct public roads; bids until Oct. 5; H. C. Mickler, Clk. County Commrs. (See Machinery Wanted—Road Construction; Liquid Asphalt.)

Fla., Eau Gallie — City will improve streets; may vote on \$25,000 bonds. Address The Mayor.

Fla., Iverness — Citrus County will construct permanent highways; bids opened Sept. 19; J. K. Kelley, Chrmn. (See Machinery Wanted—Road Construction.)

Fla., Kissimmee — Osceola County will construct 6 mi. road in Special Road and Bridge Dist. No. 3; bids until Oct. 10; J. L. Overstreet, Clk. County Commrs. (See Machinery Wanted—Road Construction.)

Fla., Live Oak — Suwanee County will construct highways through county; \$500,000 available. Address County Commrs.

Fla., South Jacksonville — City let contract to J. Y. Wilson Co., at \$129,800 to pave streets.

Fla., St. Petersburg — City let contract to Georgia Engineering Co., to pave 11th St. north from 5th to 7th Ave.; vitrified brick; granite curbing; G. B. Shepard, Director Finance. (Lately noted inviting bids.)

Fla., Tampa — City will pave S. Edison Ave., 3,535 sq. yds.; 16th St., 1,200 lin. ft. curbing; 1,350 sq. yds. pavement; Dekle Ave., 2,910 sq. yds. pavement; Hills Ave., 7,200 sq. yds. pavement and 4,800 lin. ft. curb; bids opened Sept. 20; Chas. H. Brown, Mayor Commr. (See Machinery Wanted—Paving.)

Fla., Titusville — Brevard County sold \$175,000 bonds to construct roads and bridges in Dist. 6. Address County Commrs.

Ga., Claxton — State Highway Dept., Atlanta, Ga., will construct 12 mi. road in Evans County near Reidsville; H. B. McWhorter, Div. Engr., Atlanta, Ga.

Ga., Macon — Bibb County will invite bids on paving 3 mi. Clinton road and 6 mi. Jeffersonville road. Address County Commrs.

Ga., Macon — Bibb County will pave hill on Thomaston road; 1 mi. concrete. Address County Commrs.

Ga., Metter — State Highway Dept., Atlanta, Ga., will construct 12 mi. road connecting Buloch county with Emanuel, Candler County.

Ky., Stearns — State Highway Comsn., Frankfort, Ky., will improve street; 1.4 mi.; State Project No. 22, Section A, McCreary County; surface with brick, rock asphalt or bituminous macadam penetration type, 16-ft. wide; bids until Sept. 28. Lately noted. (See Machinery Wanted—Paving.)

Ga., Sylvania — State Highway Dept., Atlanta, Ga., will construct 12 mi. road in Screven County from Sylvania to Newington; portion of Dixie highway; H. B. McWhorter, Div. Engr., Atlanta, Ga.

La., Baton Rouge — East Baton Rouge Parish will sell \$175,000 road construction bonds; Jos. Gebelin, Prest. Police Jury.

La., Gretna — City will invite new bids on \$300,000 sidewalk paving. Address The Mayor.

La., Hinesville — State Highway Dept., Atlanta, Ga., will construct 11 mi. road between Hinesville, Liberty County and Midway Church; cost \$64,000.

La., Leesville — Vernon Parish will gravel Leesville highways; E. E. Jordan, Secy. Police Jury. (See Machinery Wanted—Gravel.)

La., New Orleans — City will repair Frenchmen St.; low bidder Craven & Laug, at \$15,805; low bidder for repairing streets in

Algiers, A. P. Boh & Co., at \$14,350. Address City Engr.

Md., Baltimore — Paving Comsn. will pave streets in Contract No. 198 OC, consisting of Brewer, Lambert and Lemmon Sts.; Cement concrete; Contract No. 199 OA consisting of Bateman Ave., Chelsea Terrace and triangular strip of Gwynns Falls Parkway at Chelsea Terrace; all sheet asphalt; also recommended to Public Improvement Comsn. the paving with sheet asphalt of Iona Terrace, 800-ft. east.

Md., Baltimore — Board of Awards let contract to P. Flanagan & Sons, Harford Rd. & Baltimore and Ohio R. R., at \$115,780 to pave Edgewood, Grantley, Mount Holly, Norman, Parkin Sts., and Loudon, Lyndhurst Aves. and Old Frederick road.

Md., Baltimore — Paving Comsn., City Hall, recommended paving of following sections Key highway and McComas St.; cost \$60,000. Key highway from Lawrence St. to Baltimore and Ohio Railroad bridge south of Fort Ave.; sheet asphalt on base already laid; temporary driveway under Baltimore and Ohio bridge; West side of Key highway from Baltimore and Ohio bridge to McComas St.; sheet asphalt; concrete driveway on north side McComas St. from Key highway to entrance of Port Covington terminals.

Miss., Macon — Noxubee County will surface 1 mi. Shuqualak and Summer-ville road; sand and clay; bids until Oct. 3; W. J. Hubbard, Road Commr. Dist. No. 4. (See Machinery Wanted—Road Construction.)

Miss., Oxford — Lafayette County will construct roads in Dallas Road Dist. of Beat 5; vote Oct. 3 on \$15,000 bonds; D. T. Mitchell, Election Commr.

Mo., Jefferson City — City will surface and resurface High St. between intersection of High and Chestnut Sts.; 12,383 sq. yds. bituminous macadam surface course; 12,383 sq. yds. reconstructed base course; etc.; bids until Sept. 26; F. E. Ross, City Engr. (See Machinery Wanted—Paving.)

Mo., Kansas City — Board Public Works let paving contracts as follows: A. R. Mense, at \$12,259.36 to reconstruct bituminous macadam paving on 75th St. from Wornall road to Troost Ave.; J. E. Welsh, at \$8,014.50 to construct plain concrete pavement on Harrison St. from 59th to 61 St.; at \$1,431 to construct plain concrete pavement on Brooklyn Ave. from 56th St.; at \$2,489.40 to construct plain concrete pavement on 56th St.; Halpin-Boyle Construction Co., at \$4,385.84 to construct combined concrete curbing and paving on Fairmont Ave. from 29th St. to 30th Ct.; at \$3,836.56 to construct plain concrete pavement on Bell St. from Christine Ave. to 35th St.; Hoover Bros., at \$1,005.47 to pave alley south of 16th St.

Mo., Kansas City — Board Public Works will receive bids on concrete pavement and curbing on Fairmont Ave.; plain concrete pavement on Harrison St.; bituminous macadam pavement on S. Benton St.; rock asphalt pavement on alley between Walnut St. and Grand Ave. and vibrated concrete on alley next south of 16th St.

Mo., Lamar — Barton County may improve roads; \$50,000; H. P. Boberly, State Div. Highway Engr., Jefferson City, Mo.

Mo., Macon — State Highway Dept., Jefferson City, Mo., let contract to Louis Rich Construction Co., E. St. Louis, Ill., at \$15,180.59 to construct 4.94 mi. State road from Macon northward and southward; State Aid Project 20.54, Macon County. (Lately noted inviting bids.)

Mo., Osceola—State Highway Dept., Jefferson City, Mo., let road contracts as follows: M. E. Gillioz, Monett, Mo., at \$14,053.75 to construct 6.23 mi. State road from Osceola northward and southward; State Aid Project 20.74; A. L. Cook, Ottawa, Kans., at \$13,172.06 to construct 3.4 mi. State road from Osceola southwestward; State Aid Project 20.75; both St. Clair County. (Lately noted inviting bids.)

Mo., Palmyra—State Highway Dept., Jefferson City, Mo., let contract to James T. McMahon, St. Louis, Mo., at \$11,122.58 to construct 3.30 mi. State road from Taylor northward and southward; State Aid Project 20.39, Marion County. (Lately noted inviting bids.)

N. C., Asheville—City will widen Valley, Oak, Charlotte and other streets; cost \$25,000; R. J. Sherrill, Commr. Public Works.

N. C., Charlotte—City plans paving streets; \$150,000 to \$200,000. Address The Mayor.

N. C., Columbus—Polk County contemplates road improvements along Spartanburg-Asheville highway to Henderson county line. Address County Commrs.

N. C., Danbury—State Highway Comsn., Raleigh, N. C., let contract to W. E. Graham, Mt. Ulla, N. C., at \$30,640 to construct 7.16 mi. top-soil road in Stokes County on road from Winston-Salem to Roanoke; Project 543.

N. C., Gastonia—State Highway Comsn., Raleigh, N. C., will probably let contract to Willard Boggs & Co., Spartanburg, S. C., at \$80,000 to construct 3.02 mi. plain concrete pavement in Gaston County, Project 630-A. (Lately noted inviting bids.)

N. C., Graham—Town will sell \$25,000 street and sidewalk construction bonds; R. G. Foster, Clk.

N. C., Marion—Town, H. H. Tate, Mayor, will improve streets; sell \$50,000 bonds.

Okla., Atoka—Atoka County may improve roads and construct highways in all dists.; contemplate voting on \$350,000 bonds. Address County Commrs.

N. C., Southport — Brunswick County will construct 74,000 sq. yds. sheet asphalt, asphaltic concrete or warrentite-bitulithic road paving, complete with necessary curb and pipe drainage; 12 concrete culverts; bids until Oct. 17; W. H. Walker, Ex-Officio Clk. County Commrs. (See Machinery Wanted—Paving.)

N. C., Waynesboro—State Highway Dept., Atlant., Ga., will construct portion of Dixie highway from Millen to Waynesboro, Burke County.

Okla., Muskogee — Muskogee County Commrs. let contract to H. J. Stebbins, at \$50,000 to construct 11 mi. road between Fort Gibson and Braggs; invites bids on road between Four Mile Corner on West Okmulgee road and Bald Hill; will soon invite bids on road between Keefeton and Warner.

Okla., Tulsa—City will pave alley in Block 10, Central Park Place addition, alley in Block 7, Lindsey 1st addition between Guthrie Ave. and Frisco Ave., alley in Block 3, Bliss Addition between Denver Ave. and Elwood Ave., and First Alley east of Denver Ave. between 12th and 13th Sts.; bids until Sept. 22; Mrs. Frank Seaman, City Auditor. (See Machinery Wanted—Paving.)

Okla., Tulsa—Tulsa County will construct 9 mi. hard-surface road leading out of Tulsa; voted \$250,000 bonds. Address County Commrs.

Okla., Wagoner—Wagoner County will construct Jefferson highway connecting Mayes and Muskogee counties; vote Oct. 11, 12 and 13 on \$190,000 bonds of Shannon, Blue Mount and Creek township. Address County Commrs.

S. C., Abbeville—Abbeville County will construct 7.57 mi. top-soil road from city limits of Abbeville to Greenwood county line; bids until Sept. 22; L. W. Keller, Secy., Highway Comsn. (See Machinery Wanted—Road Construction.)

S. C., Tryon—City will repave streets; vote on \$60,000 bonds. Address The Mayor.

Tenn., Cleveland — Improvement Dist. 11, 16, 17 and 18 will construct 6,800 cu. yds. grading, 25,800 sq. yds. paving; 10,720 sidewalk; etc.; bids opened Sept. 20; L. L. Woollen, Mayor. (See Machinery Wanted—Paving.)

Tenn., Knoxville—City will pave Lowe's Ferry road; cost \$10,000. Address The Mayor.

Tex., Brenham—City will pave streets; \$40,000 available; L. H. Earnest, City Engr., Dallas, Tex. (Previously noted voting.)

Tex., Cameron—Milam County will improve 8.2 mi. Highway No. 44, Section D; \$45,000; opened Sept. 19; Giles L. Avriett, County Auditor. (See Machinery Wanted—Road Construction.)

Tex., Canadian—Hemphill County will construct roads; voted \$50,000 bonds; J. E. Stephens, County Judge. (Lately noted to vote.)

Tex., Cooper—Delta County let contract to W. B. Ward, Greenville, Tex., to construct earth work on State Highway No. 39.

Tex., El Paso—City will vote Oct. 11 on \$240,000 bonds for street improvements; R. C. Semple, Mayor Pro Tem. (Lately noted to vote Sept. 6.)

Tex., Fort Worth—Tarrant County will surface 13 mi. sector of Fort Worth-Hicks road and Kuteiman Cutoff road; bids until Sept. 26; changed date from Sept. 1; W. E. Yancy, County Auditor. (Lately noted inviting bids.)

Tex., Franklin—Robertson County will construct roads; vote Sept. 30 on \$150,000 bonds; J. Reid, County Judge. (Lately noted.)

Tex., Kaufman—Kaufman County Permanent Road Commrs., Terrell, Tex., will receive bids until Oct. 6 on earth work on outer ends of various roads in Precinct 3; W. P. Williams, County Judge. (See Machinery Wanted—Road Construction.)

Tex., Quitman—Wood County let contract to Boyd & Alvis, Winnboro, Tex., to construct concrete drainage structures on Jim Hogg highway; \$50,000. Supersedes recent item. (See Machinery Wanted—Road Building Materials; Road Building Equipment; Trucks; Loaders.)

Tex., Wolfe City—City will pave streets; brick. Address The Mayor.

Tex., Wharton—Wharton County will grade and construct bridges on Wharton-Eagle Lake road, Wharton-East Bernard.

Bernard Prairie and other roads; bids opened Sept. 19; J. P. Taylor, County Auditor. (See Machinery Wanted—Road Construction.)

Va., Altavista—State Highway Comsn., Richmond, Va., will let contract for 6.6 mi. road between Lynchburg and Altavista; portion of Lynchburg to Danville state highway.

Va., Farmville—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to W. W. Boxley & Co., at \$101,688 to construct 3.85 mi. of 16-ft. concrete road on State road No. 10 north and west of Farmville, Prince Edward County. (Lately noted inviting bids.)

Va., Hillsville—State Highway Dept., Richmond, Va., let contract to Albert Bros. Kegley, W. Va., to construct grading and drainage structures in Carroll County; cost \$160,000. (See Machinery Wanted—Sovel Wagons.)

Va., Manassas—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to Hyde & Baxter, at \$132,214 to construct 6.5 mi. bituminous macadam road on State Road No. 21 between Greenwich and Milford Mills; Prince William County, Project No. 30. (Lately noted inviting bids.)

Va., Martinsville—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to Jamison Bros., at \$39,607 to construct 8.29 mi. soil road on State road No. 12 from Five Forks to Patrick county line, Henry County. (Lately noted inviting bids.)

Va., Rustburg—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to Battershill & Goode, Virgilina, Va., to construct 11.4 mi. soil road in Campbell County; C. L. Scott, Engr., Lynchburg, Va. (Lately noted inviting bids.)

Va., Staunton—Augusta County will sell \$100,000 road improvement bonds; J. N. McFarland, Treas.

W. Va., Bridgeport—City will pave streets; voted \$37,000 bonds. Address The Mayor.

W. Va., Elkins—Randolph County will construct Seneca Pike in Beverly Dist.; bids until Oct. 6; H. C. Kesling, County Clk. Previously noted inviting bids July 22. (See Machinery Wanted—Road Construction.)

W. Va., Fairmont—City let contract to Ralph Fimple, at \$7,000 to pave Merchant St. at approach of Monongahela river bridge.

W. Va., Matewan—Town will pave streets on concrete base. Address The Mayor.

W. Va., St. Albans—City will construct 2,420 sq. yds. paving; storm sewers, etc.; bids until Oct. 9; changed date from Sept. 23; J. M. Oliver, City Engr. (See Machinery Wanted—Paving.)

Sewer Construction.

Fla., Tampa—City, Chas. H. Brown, Mayor, let contract to Thompson & Owen, at \$25,240.71, to construct sanitary sewer on Beach Drive.

Fla., Tampa—City, Chas. H. Brown, Mayor, will construct sanitary sewer in alley of block No. 9, Osewanna sub-division; 338 lin. ft. 6-in. terra cotta pipe; 12 6x4-in. Y's; manhole; bids opened.

Ga., Athens—City will extend sewer and water mains in Morristown and Newton sections. Address The Mayor.

Ky., Ashland—City, H. R. Dysard, Mayor, will improve and install sewers; vote in Nov. on \$250,000 bonds; Donald H. Putnam, Chrmn., Sanitation Committee.

Ky., Frankfort—City, W. S. Rossou, Mayor, will construct trunk line sewer and

drainage canal through Thorn Hill; Howerton-Tierway Co., Asheville, N. C., lowest bidder; S. F. Creelins, Civil Engr., Danville, Va. (Lately noted.)

La., Baton Rouge—City, Mayor Grouchy, will construct 600 ft. 8-in. sewer line on St. Ferdinand St. from S. Boulevard to City Canal; bids opened: A. G. Munding, City Engr. (Lately noted. (See Machinery Wanted—Sewers.)

Mo., Hagerstown—City, Sewerage Commn., L. LeRoy Heard, Secy., Police Headquarters Bldg., will install sanitary sewers in streets, alleys and rights of way; 25,000 lin. ft. 6 to 20-in. sanitary sewers with all manholes, foundations and appurtenances; 20,000 lin. ft. 6-in. house connections and 8,000 lin. ft. 4 and 5-in. extra heavy soil pipe; bids until Oct. 11. (See Machinery Wanted—Sewers.)

Mo., Independence—City, Wm. Stewart McCoy, Mayor, let contract to Ray & Son, Baxter Springs, Kan., at \$84,841.87, to improve sewer system; and to Simplex Injector Co., Chicago, Ill., at \$11,366, to furnish and install ejector equipment for sewer system; Burns & McDonnell Engineering Co., Engr., Interstate Bldg., Kansas City, Mo. (Lately noted bids until Sept. 6.)

Mo., Kansas City—City, Board of Public Works, let contract to T. P. Thompson, at \$4,140, to construction district sewers for 23rd, 26th and Locust Sts., and Westport Road; also to T. P. Thompson, at \$4,605, to construct sewer for 18th and 27th Sts., the Paseo and Park Ave.

Mo., Kansas City—City, Board of Public Works, will construct sewers in Dist. No. 146; improve sewers in Dist. No. 54; bids opened.

Mo., Mexico—City let contract to Reed & Wheelock, Clay Center, Kan., at \$24,500, to construct sewerage disposal plant; Wallace Denning, Clk.; Black & Veach, Engr., Mutual Bldg., Kansas City, Mo. (Lately noted bids until Aug. 8.)

Mo., Monett—City, James Johnston, Clk., let contract to M. E. Gillioz, at \$9,680, to extend sewers; 3,430 ft. 6, 8 and 12-in. pipe; 9 manholes; 2 lampholes; Bert Robbins, Engr. (Lately noted.)

N. C., Graham—Town will issue \$17,000 sewer bonds; R. G. Foster, Town Clk.

N. C., Greensboro—City will extend sewerage and water lines to new tobacco warehouse, costing \$1,500. Address The Mayor.

Okla., Ardmore—State Board of Public Affairs, Geo. F. Clark, Chrmn., Oklahoma City, will construct septic tank and power house at Confederate Home; bids opened; Chas. P. Neider, Archt.; Empress Theater Bldg., Oklahoma City.

Okla., Oklahoma City—City, Mike Donnelly, Commr. of Accounting and Finance, plans voting Oct. 15 on \$2,000,000 bonds to improve sanitary sewer system and install sewage disposal plant; and on \$1,600,000 bonds to improve storm sewers.

Tenn., Cleveland—City, Improvement District Commrs. of Distrs. No. 11, 16, 17 and 18, will construct 4,550 ft. 12 to 30-in. storm sewers, 10 manholes and 44 inlets; bids opened; L. L. Woollen, Mayor; S. D. Newton, Engr. (See Machinery Wanted—Sewers.)

Tex., Decatur—City voted \$175,000 sewerage and water bonds. Address The Mayor.

Tex., El Paso—City, R. C. Semple, Mayor Pro Tem, will extend sewer systems; vote Oct. 11 on \$250,000 bonds; also install sewerage disposal plant; vote Oct. 11 on \$125,000 bonds. (Lately noted to vote Sept. 6.)

Tex., Hearne—City, W. H. Ely, Mayor,

plans establishing system of sewer drainage; C. V. Lornert, Sanitary Engr., State Health Dept., Austin; C. F. Banks, Hearne, direct work.

Tex., Manchester—City will construct sanitary sewer on St. Bernard St.; Charles K. Horton, at \$1,190, lowest bidder.

Va., Roanoke—City, W. P. Hunter, Mgr., let contract to Tinsley Construction Co., at \$38,000, to extend sewer system; construct 6 to 18-in. pipe line. Lately noted. (See Machinery Wanted—Ditching Machine.)

W. Va., St. Albans—City, will construct 1,500 lin. ft. 12-in. storm sewers; install 3 water boxes; bids until Oct. 9; J. M. Oliver, City Engr. Lately noted bids Sept. 23. (See Machinery Wanted—Sewer.)

W. Va., Princeton—City will construct 1 mi. sewer line with 2 lateral branches in west end, up Gladly Fork Valley. Address The Mayor.

Telephone Systems.

Ala., Ensley—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will install cables to provide city with 1,000 additional telephones; reported to expend \$3,000,000 in state during next five years.

Ala., Mobile—Southern Bell Telephone Co., J. C. Adolphus, local Mgr., will expend \$44,000 on additional facilities, increase capacity of switchboard from 4200 to 6300 lines; place quantity of cable in northern and northeastern sections of exchange building, costing \$76,000; contemplate replacing 35 mi. copper wire between Mobile and Montgomery.

Textile Mills.

N. C., Carthage—Hosiery—Bismark Hosiery Mills, S. J. Hooks, Mgr., contemplates installing dyeing and finishing department.

N. C., China Grove—Woodson Mills Co., organized with C. W. Woodson, Pres., Treas.; W. H. Woodson, Secy.; all Salisbury, N. C.; has established plant, (Lately noted under Salisbury, N. C., Incpd., capital \$100,000.)

S. C., Batesville, P. O. Greer—Yarns Jenkins Mills, J. A. Jenkins, Pres., Treas., Woodruff, S. C., purchased Prospect Mills; may enlarge plant. (Lately noted under Greenville, S. C., Incpd., capital \$25,000.)

Water Works.

Ala., Gadsden—City plans expending \$4,965 to extend water mains in following streets: 10th from Tuscaloosa to Brooklyn Height; Christopher Ave. from 10th to 12th Sts.; 11th from Pine to Hickory; Ewing Ave. from Hammond St. to corporate limits. Address The Mayor.

Fla., Plant City—City will extend water mains in northwest section. Address The Mayor.

Ga., Athens—City will extend water and sewer mains in Morristown and Newton sections. Address The Mayor.

Ga., Elberton—City let contract to Wood-Rucker Construction Co., Atlanta, Ga., to construct additions to pumping station; two 500,000-gal. capacity reinforced concrete filters, 250,000-gal. capacity reinforced concrete reservoir and 3,000,000-gal. capacity storage reservoir. Address The Mayor.

Ga., Thomasville—City, E. M. Smith, Jr., Clk., let contract to Wood Rucker Construction Co., Atlanta, Ga., at \$14,836, to construct rectangular reservoir at water plant.

Md., Baltimore—Board of Awards, Mayor

Wm. F. Broening, Pres., let contract to Thomas Mullan, 3945 Greenmount Ave., at \$45,285, to construct 7,000,000-gal. capacity balancing reservoir; also surge tank at Montebello; Wm. A. Megraw, Water Engr.; Harry G. Porrin, Ch. Engr. (Lately noted bids until Sept. 10.)

Miss., Richton—City will install water-works; voted \$12,500 bonds. Address The Mayor.

Mo., Craig City—City will construct water-works; voted Sept. 18 on bonds. Address The Mayor.

Mo., Memphis—City will extend water mains; voted bonds. Address The Mayor.

N. C., Greensboro—City will extend water and sewerage lines to new tobacco warehouse, costing \$1,500. Address The Mayor.

N. C., Morganton—City, W. J. Hallybarton, Clk., will issue \$25,000 water and light bonds.

Okla., Oklahoma City—City, Mike Donnelly, Commr. of Accounting and Finance, plans voting Oct. 15 on \$1,600,000 bonds to improve water-works.

Tenn., Memphis—Carlross Co., capital \$10,000, Incpd. by H. E. Carlross, T. K. Creson and J. C. Sharp.

Tenn., Nashville—City, Felix Z. Wilson, Mayor, will improve and extend water-works; construct cast iron force main, booster station, filtration plant; repair present reservoir; extend water mains; install new boiler and mechanical equipment, etc.; will vote on \$1,800,000 bonds; Paul Trenor, Water Commr. (Supersedes previous item.)

Tex., Decatur—City voted \$175,000 water and sewerage bonds. Address The Mayor.

Tex., El Paso—City, R. C. Semple, Mayor Pro Tem, will extend water-works; vote Oct. 11 on \$500,000 bonds. (Lately noted to vote Sept. 6.)

Tex., Houston Heights, P. O. Houston—City, Mayor Holcombe, plans expending \$23,000 to construct 12-in. main between 11th and 19th Sts.; will also construct settling basin at Camp Logan.

Tex., New Braunfels—City will issue \$35,000 bonds to erect concrete stand pipe. Address The Mayor. (Lately noted to vote.)

Tex., Stamford—City will complete water-works project; voted \$125,000 bonds. Address The Mayor.

Tex., Wortham—Chamber of Commerce interested in installing water-works.

Va., Charlottesville—City contemplates extending water-works to Moorman's River, and installing filtration plant; Williamson Carroll & Saunders, Engrs.

W. Va., Bluefield—Bluefield Water-works & Improvement Co., contemplates enlarging plant.

W. Va., Huntington—Suburban Water Co., capital \$50,000, Incpd. by C. W. Honaker, S. H. Bowman and L. H. Cammack.

W. Va., Huntington—City Water Co., Pres., Adams, will improve water-works; lay 8-in. pipe on 12th Ave. from 4th to 6th Sts.; 6-in. pipe on 13th St. from 5th to 6th Sts.; also 6, 8 and 12-in. pipe on 8th, 10th, Madison Aves. etc.; contemplates installing settling tank; E. W. Lutes, Supervising.

Woodworking Plants.

Ark., Pine Bluff—Coffins—Pine Bluff Coffin Co. has under construction 2 story plant also office annex and dry kiln; approximate cost \$18,000.

Fla., Fort Myers—Bee—Hives, etc.—A-B-C Millwork Co., W. H. MacGlashing, Pres.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Mgr., 8 Jackson St.; rented building; install mchy.; specialize in fruit growers and bee keepers wood goods. Lately noted. (See Machinery Wanted—Woodworking Machinery; Lumber.)

Fla., St. Petersburg—Sash, Doors, etc.—F. H. Littrell & Co. organized with F. H. Littrell, Prest.; E. H. Smith, Secy.; mfrs. sash doors, frames, etc.

N. C., Durham—Wood Products—Cheek—Holton Mfg. Co., C. M. Wall, Prest., will erect 70x100-ft. plant, mfrs. wood products. (Supersedes recent item.)

Va., Port Norfolk, P. O. Norfolk—Baskets, etc.—Planters Mfg. Co., T. E. Trotman, Portsmouth, Va., contemplate rebuilding burned plant.

Fire Damage.

Ala., Clio—D. Z. Atkinson's warehouse. Ark., Newport—Capt. Amos Huff's saw-mill and hardwood lumber plant.

Ala., Mobile—Mobile Fair Assn.' automobile show building.

D. C., Washington—Golden & Co.'s building at 928-30 Louisiana Ave.; loss \$35,000.

Fla., Crescent City—Atlantic Coast Line R. R.'s depot; J. E. Willoughby, Ch. Engr. Wilmington, N. C.

Ga., Leary—Boyd Co.'s building owned by Mrs. Dixon Bell.

Md., Baltimore—Read Drug & Chemical Co.'s building, Charles and Lexington Sts.; loss \$10,000; Ferdinand Ullman, Mgr.

N. C., Bat Cave—Slick Rock Inn, on Cascade-Hendersonville, Rd., about 2 mi. from Bat Cave; loss \$20,000. Address The Manager.

N. C., Whiteville—Whiteville Lumber Co.'s planing mill; loss \$100,000.

Ga., Blakely—Peoples Warehouse Co.'s warehouse.

Ky., Augusta—L. V. Marks & Co.'s shoe

factory, owned by City of Augusta; R. J. Reynolds Tobacco Co.'s warehouse.

La., Arcadia—Arcadia Cotton Co.'s bonded warehouse.

Mo., Vanduser—Bank of Vanduser.

Okla., Chickasha—Hart Cotton Machine Co.'s plant; loss \$100,000.

Okla., Okemah—J. D. Turner's residence.

S. C., Evans, P. O. Chester—McAliley Bros.' cotton ginnery; loss \$30,000.

S. C., Estill—Hamilton Ridge Lumber Corp.'s box factory; loss from \$150,000 to \$200,000.

S. C., Olar—Seaboard Air Line Ry.'s station; W. D. Faucette, Ch. Engr., Norfolk, Va.

Tenn., Clarksville—Clarksville Ice & Coal Co.'s plant; loss \$50,000.

Tex., Breckenridge—Continental Supply Co.'s building and stock; loss from \$15,000 to \$20,000.

Tenn., Dyersburg—Barn on Ferguson Farms owned by Forest Ferguson.

Tenn., Greenfield—N. J. Brock & Co.'s warehouse; Allen & Shannon Co.'s dry goods store; Ray & Grooms' building; McAdams & Miller's building.

Tex., Austwell—Austwell Oil Mill; loss several thousand dollars.

Tex., Dallas—Avery Co. of Texas' building at Main and Houston Sts.; loss \$20,000 to \$30,000; J. Asbell, Sales Mgr.

Tex., Palestine—Belcher's steam laundry plant.

Tex., Rochester—Rochester Supply Co.'s building.

Va., Alexandria—Virginia Shipbuilding Supply Corp.'s warehouse; Mutual Ice Co.'s warehouse; W. A. Smoot & Son's lumber mill.

Va., Damascus—Damascus Lumber Co.'s saw mill; loss \$50,000.

Prest., will erect \$250,000 shrine temple; 3 stories and basement; brick and terra cotta; fireproof; Puckey & Jenkins, Archts., 6 N. Michigan Ave., Chicago. (Previously noted.)

S. C., Charleston—Building Comm. of Grand Lodge, A. F. & A. M., W. W. Wannamaker, Chrmn., will receive bids until Oct. 11 at office of Simons & Lapham, Archts., 42 Broad St., for extensions and alterations to Masonic Temple at King and Wentworth Sts.; brick walls; mill construction; extension, 36x55 ft.; alter 2 floors, 100x55 ft.; tin roof; concrete and yellow pine floors; American Blower Co. forced ventilation; Otis elevator; ornamental terra cotta; interior tile; wire glass; plans and specifications at office of architects. (Previously noted.)

Bank and Office.

Ga., Atlanta—Southern Ferro Concrete Co., H. W. Beers, V.-P., will erect office building at 50 E. Ellis St.; construction by owner.

N. C., Greensboro—C. D. Kellenberger, 1029 W. Market St., will erect office building; 3 stories and basement; 60x100 ft.; brick and stone; C. C. Hartman, Archt. (Previously noted.)

S. C., Spartanburg—Bank of Commerce will remodel building for bank.

W. Va., Huntington—D. L. Smith, Chrmn. Comm., Huntington Land Co., will erect Gayandotte Bank; bids until Sept. 22; plans at office of Wm. Francis Diehl, Archt., 617 Robson-Prichard Bldg.

Churches.

Ala., Montgomery—Trinity Presbyterian Church plans to erect \$40,000 building; details not decided. Address Dr. Chas. H. Pratt, Pastor, 1437 S. Court St. (Lately noted.)

Ga., Dalton—Jones Street Sunday School, Rev. C. H. Williams, Rev. H. C. Emory and H. J. Smith, Treasurers, will erect chapel.

Ga., Oconee—Methodist Church will erect building. Address The Pastor.

Ky., Georgetown—Presbyterian Church will erect \$18,000 annex and remodel building on Mulberry St.; 2 stories; 6 class rooms, study and kitchenette on first floor; assembly room on second to accommodate 140, surrounded by 9 class rooms. Address The Pastor.

Ky., Newport—First Church of Christ, Scientist, R. E. Lincoln, Chrmn. Bd of Trustees, 32 Tremont Ave., Fort Thomas, will erect \$50,000 building; 45x120 ft.; 1 story and basement; brick; limestone trim; Arthur Neal Robinson, Archt., 623 Candler Bldg., Atlanta, Ga.

Mo., Columbia—Lutheran Church will erect \$28,000 building; H. B. Hauschild, Supt. of Construction. (Lately noted.)

Okla., Bartlesville—Church of the Nazarine, Rev. F. C. Savage, Pastor, will erect building.

Tenn., Paris—Catholic Church, Rev. C. C. Reid, Pastor, will erect \$12,000 building; 35x60 ft.; brick and stone; 1 story and basement; Regan & Weller and H. J. Kramer, Archts., Memphis. (Lately noted.)

Tex., Houston—First Baptist Church will erect building on Lamar Ave., between Main and Fannin Sts.; 4 stories; auditorium to seat 3200; C. D. Hill & Co., Archts.; Tom. Tellepson, low bidder at \$530,000. (Lately noted.)

Va., Lynchburg—Euclid Avenue Christian Church will erect Sunday School department. Address The Pastor.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment-Houses.

D. C., Washington—L. E. Sholtes, N. W. Realty Co., 18th St. and Colorado Rd., will erect \$200,000 apartment house at Mass. Ave., nr. Cal. St., N. W.; 5 stories; 100x115 ft.; 120 rooms; brick, stone and concrete; plans by owner.

Ky., Lexington—E. Silver Co., Main St., will erect \$20,000 apartment building; 30x60 ft.; 2 stories and basement; brick, stone and stucco; Martin Gurtz, Archt., City Natl. Bank Bldg.

Mo., Kansas City—Chas. E. Phillips will erect 6 apartment houses at 801-3, 805-7, 809-11, 815-17, 819-21 and 823-25 E. 42nd St.; 3 stories; brick; cost \$15,000 each.

Mo., Kirksville—Chas. V. Miller will erect apartment house at Marion and Jefferson Sts.; 36 suites.

Mo., St. Louis—Chas. S. Muerl, 3154 S. Grand Ave., will erect 2 apartment houses; cost \$40,000; 50x125 ft.; brick; lath partitions; composition roof; oak floors; modulating vapor heat; ornamental terra cotta; interior tile; mail chutes; ventilators; plans and construction by owner.

Tex., Dallas—Mrs. C. A. Foster will erect apartment house at Oak Lawn Ave. and Hall

St.; brick and half timber; 6 suites; steam heat; English style; Dewitt & Lemmon, Archts.

Va., Norfolk—Ozone Apartment Corp., H. W. Simpson Prest., Board of Trade Bldg., will erect \$175,000 apartment building at Westover and Fairmount Aves.; 48 suites; 6 stories and basement; 140x80 ft.; hollow tile and steel; fireproof; H. W. Simpson, Archt.

Va., Richmond—Lindner & Phillips, American Natl. Bank Bldg., prepared plans for \$30,000 apartment house; 3 suites; 3 stories; 36x60 ft.

Association and Fraternal.

Ala., Fairview, Sta. Birmingham—Ancient Free and Accepted Masons will erect \$32,000 temple; 3 stories; brick; 84x55x39 ft.; stores on first floor.

Okla., Rentiesville—Negro Odd Fellows will erect \$40,000 orphans and old folks home; 4 stories; 44x68 ft.; fireproof; native stone, reinforced concrete and steel; slate roof; concrete and hardwood floors; hot air heat, \$3000; conduit lighting; Barnes & McCoy, Archts., 704 R. R. Exchange Bldg., Muskogee. (Lately noted.)

Okla., Tulsa—Adkar Corp., A. C. Farmer,

Va., Winchester—Market Street M. E. Church, Rev. Walter M. Depp, Pastor, will improve building; fresco structure; construct hardwood floors; install direct indirect lighting system.

W. Va., Charleston—Calvary Baptist Church, Rev. J. J. Cook, Pastor, will expend \$40,000 to complete building at Maryland Ave. and Fayette St.

City and County.

Miss., Hattiesburg—City Hall—City, T. E. Ratson, Mayor, will erect city hall at Front and Forrest Sts.; 151x150 ft.; white and buff tapestry brick; terra cotta cornice; Bedford limestone trim; 2 stories and basement; yellow pine, concrete and terrazzo tile floors; Robt. E. Lee, Archt. (Lately noted.)

Mo., Carthage—Jail—Jasper County, Harry J. Mead, Sheriff, will erect \$125,000 jail; jailer's residence; hospital room, etc.

Okla., Oklahoma City—Fire Stations—City, Mike Donnelly, Commr. of Accounting and Finance, will probably vote Oct. 15 on \$6,200,000 bonds for city improvements, including \$250,000 for fire department, \$122,700 of which will be expended for erecting and repairing fire stations.

Tex., Waco—Market House—City, Mr. Richards, Mayor, plans to convert building into market house.

Courthouses.

Ga., Winder—Barrow County will vote Oct. 8 on \$50,000 bonds to complete courthouse; fireproof; slate roof; combination flooring; steam heat; electric lights; metal ceilings; plaster board; ornamental terra cotta; safes; interior tile; vault lights; ventilators; completed structure will cost about \$150,000; J. J. Baldwin, Archt., Anderson, Address Judge C. W. Parker. (Lately noted.)

Dwellings.

D. C., Washington—Chas. L. Tankersley, 1886 Monroe St., N. W., will erect 6 residences; cost \$9850 each; 22.6x40 ft.; 2 stories; brick; slag roofs; oak and pine floors; hot water heat; lights, \$98 each; interior tile; wire glass; plans and construction by owner.

D. C., Washington—Robt. E. Funkhouser, Georgia Ave. and Kennedy St., will erect 5 residences; cost \$7000 each; brick and frame; composition roof; oak and pine floors; hollow fireproof tile; plaster board; hot water heat and pipeless furnaces; plans and construction by owner. (Lately noted.)

D. C., Washington—Thos. A. Jameson, 909 New York Ave., will erect 16 residences and garages on Kansas Ave., between 38th and 39th Sts.; cost \$100,000; 2 stories; brick; 25x35 ft.; Geo. T. Santmyers, Archt., Md. Bldg.; construction by owner. (Lately noted.)

D. C., Washington—W. Petherbridge, 1923 Park Rd., N. W., will erect \$14,500 residence and garage on 14th St., ext.; brick; Moore & Blakeslee Co., Archts.

D. C., Washington—Miss. S. Elizabeth Taber, 709 Sheppard St., N. W., will erect \$10,000 residence on 8th St., nr. Buchanan; 2 stories; 25x32 ft.; brick; Stern & Tomlinson, Archts., Continental Bldg.

Fla., Daytona—C. C. Heissen will erect \$11,000 bungalow on Atlantic Ave.; frame and stucco.

Fla., Plant City—V. W. Touchton will erect 2 bungalows on S. Pearl St.; 5 rooms and bath.

Fla., South Jacksonville—South Side In-

vestment Co., H. Meister, Prest., J. W. Hubb, V. P., incorporated with capital stock of \$50,000; plans to erect dwellings.

Fla., St. Augustine—G. S. Meserve plans to organize company with capital stock of \$50,000 to erect dwellings.

Fla., Tampa—Dr. R. J. Dickerson will erect tile and stucco bungalow in Seminole Heights; Spanish type; B. C., Bonfoey, Archt.

Fla., Tampa—L. P. Dickie will erect 2-story frame residence in Memorial highway; 10 rooms; colonial architecture; B. C. Bonfoey, Archt.

Ky., Corbin—Harry Nevels will erect \$10,000 residence; 30x35 ft.; 1½ stories and basement; frame and brick veneer; wood joist floor and roof construction; J. W. Gaddis, Archt., American Natl. Bank Bldg., Vincennes, Ind.

Ky., Pineville—Judge B. B. Golden will erect \$12,000 residence; 30x50 ft.; brick and hollow tile; R. F. Graf & Sons, Archts., Arnstein Bldg., Knoxville, Tenn.

La., Baton Rouge—D. Emmett McInnis, New Orleans, plans to erect residence near Baton Rouge.

La., New Orleans—Max Singer will erect 2 bungalows at 2807-09 Peters Ave.; cost \$13,000; construction by owner.

Md., Baltimore—Albert H. Samuel, 530 N. Calvert St., will erect \$15,000 residence on Park Heights Ave., nr. Glen Ave.; John R. Forsythe, Archt., 232 St. Paul St.

Md., Baltimore—Murray & Haynes, Inc., Garrison Blvd. and Duvall Ave., will erect two 1½ story frame dwellings at 3700-11 Barrington Rd.; cost \$11,000.

Md., Frederick—Harry E. Cornpropt will erect residence on Linden Ave.; Colonial type.

Mo., St. Louis—Jameson Realty & Sub-division Co., H. F. Tash, Prest., will erect 12 dwellings; cost \$60,000; 1 story; 30x34 ft.; brick; Leo K. Milberger, Archt., 3426 California Ave.

Mo., St. Louis—Leo K. Milberger, 3426 California Ave., will erect \$12,000 residence; 1 story; brick; plans and construction by owner.

Mo., St. Louis—C. S. Moynihan, 1923 Olive St., will erect \$10,000 residence; 2 stories; brick veneer; H. P. Hess, Archt., 4811 Cote Brilliant.

S. C., Elkton—J. D. Elliott, Hickory, will erect \$10,000 residence; 2 stories and basement; 34x41 ft.; frame; O. E. Herman, Archt., Hickory.

N. C., Greensboro—Lanning & Co. will erect dwellings: 1 and 2 stories and basement; brick veneer; plans and construction by owners.

N. C., Raleigh—Col. Albert Cox, Commercial Bank Bldg., will erect \$35,000 residence; 2½ stories and basement; 37x70 ft.; frame; Nelson & Cooper, Archts., Commercial Bank Bldg.

Okla., Muskogee—Jackson Barnett will erect residence; cost \$10,000 to \$25,000.

S. C., Fort Motte—Mr. Reid will erect \$15,000 residence; 1 story and basement; 78x50 ft.; brick; Wm. Dowden, Archt., Union.

S. C., Rock Hill—Mrs. Max Bryant will erect \$10,000 residence; 2 stories and basement; 30x40; brick veneer; J. J. Starr, Archt., Rotterroe Bldg.

S. C., Rock Hill—Gus Rotterroe will erect \$12,000 residence; 2 stories; brick and stone; J. J. Starr, Archt., Rotterroe Bldg.

S. C., Rock Hill—J. H. Rutisil will erect \$10,000 residence; 2 stories and basement;

30x36 ft.; brick and stone; J. J. Starr, Archt., Rotterroe Bldg.

S. C., Rock Hill—Dr. J. E. Welch will erect \$10,000 residence; 2 stories and basement; 30x42 ft.; brick veneer; N. G. Walker, Archt., Hempton St.

S. C., York—Paul N. Moore will erect brick and stone residence; 2 stories and basement; Chas. C. Wilson, Archt., Palmetto Bank Bldg., Columbia.

Tenn., Chattanooga—E. J. Walsh will rebuild residence lately noted burned; cost \$15,000 to \$20,000; 10 to 12 rooms; brick or tile and stucco; hardwood and concrete floors; hollow fireproof tile; metal ceilings; plaster board; ornamental terra cotta; safes; interior tile; rolling partitions; wire glass; ventilators; steel wash and trim; architect not selected.

Tenn., College Grove—J. J. Covington will erect frame residence; 1½ stories and basement; 44x54 ft.; W. R. Bell, Archt., Murfreesboro.

Tex., Dallas—Chas. Halper will erect 132 cottages, in groups of 30, in connection with development of 21½ acres between Warren and Cooper Sts. and Atlanta St. and Forest Ave.; 5 rooms, sleeping porch and cellar.

Va., Richmond—Muhleman & Kayhoe will erect 2 brick dwellings at 2317-19 Rosewood Ave.; cost \$14,500.

Va., Roanoke—S. A. Duerson will erect 5 dwellings; four, \$6000 each; one, \$7500; 29x31 and 30x32 ft.; brick cased and stucco; composition shingle roof; concrete, hardwood and rift pine floors; hot water heat, \$500 and \$700; plans and construction by owner. (Lately noted.)

W. Va., Wheeling—Chas. D. Keyser, Bel-laire, O., will erect 10 residences on 43rd St., nr. Jefferson; cost \$40,000.

Government and State.

D. C., Washington—Entrances—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., will receive bids until Sept. 30 to construct entrances from West Court into Northwest and North Central elevator lobbies at Interior Dept. Offices; drawings and specification from office of Suprv. Archt.

Mo., Springfield—Post Office, etc.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will receive bids until Oct. 6 to alter post office and courthouse; drawings and specifications from custodian of site or office of Suprv. Archt., Washington.

Hospitals, Sanitariums, Etc.

Fla., Lake City—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will erect 2 hospital buildings, laundry and refrigerating building at U. S. Public Health Service Hospital No. 63, lately noted; A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, general offices, Toledo, O.; low bidder; W. G. Cornell Co., Norfolk, Va., contr. for mechanical equipment. (See Machinery Wanted—Building Material; Cement; Steel; Tile; Millwork; Painting.)

Md., Baltimore—University of Maryland, Dr. A. F. Woods, Prest., College Park, will erect first unit of nurses home for University Hospital at Lombard and Greene Sts.; brick; vapor vacuum heating plant; promenade tile roof; cost about \$100,000; Flournoy & Flournoy, Archts., 306 St. Paul St.; bids opened Sept. 22; following contractors estimating: Consolidated Engineering Co., Calvert Bldg.; H. D. Watts Co., Garrett Bldg.; Price Construction Co., Maryland Trust Bldg.; Gladfelter & Chambers, 36th St. and Roland

Ave.; Frainie Bros. & Haigley, 18 Clay St.; Hicks, Tase & Norris, 106 W. Madison St.; Chas. L. Stockhausen Co., Gay and Water Sts.; Milton C. Davis & Son, 902 W. 36th St.; Cogswell-Koether Co., 406 Park Ave.; Renj. F. Bennett Bldg. Co., 123 S. Howard St.; Morrow Bros., Fidelity Bldg.; M. A. Long Co., Munsey Bldg.; ultimate plans provide hospital group, including hospital, nurses' home, schools of medicine, dentistry and pharmacy; total cost \$1,250,000. (Lately noted.)

N. C. Winston-Salem—Board of Aldermen called election Oct. 25 on \$1,150,000 bonds to include \$50,000 for enlarging City Memorial Hospital. (See Schools.)

Tenn., Memphis—Jewish Hospital Association will erect 2 hospital buildings; cost \$400,000; 5 stories; 75x200 ft.; concrete; terrazzo and concrete floors; steam heat probably with electric generators; 2 passenger and 1 freight elevator; interior tile; wire glass; mail chutes; Richard E. Schmidt, Garden & Martin, Architects, 104 S. Michigan Ave., Chicago. Address Milton S. Rinswauger, Chrmn. of Hospital Assn., P. O. Box 557, Memphis. (Lately noted.)

Tex., Paris—O. F. Glasgow has permit to remodel residence and apartment house at Brame and 18th Sts. for private sanitarium; 50 rooms; cost \$25,000.

Hotels.

Miss., Jackson—Roy Heidelberg will erect hotel on Capitol St.; 3 stories; 200 rooms.

N. C. Hiddenite—Davis Springs Co. will expend \$15,000 to improve Davis Springs Hotel; 100 rooms; probably erect addition; install private baths, construct swimming pool, improve grounds, etc.; work under supervision of J. J. Rogers, care Davis Springs Hotel. (Lately noted.)

Okl., Tulsa—W. Tate Brady will erect 100-room addition to Brady Hotel; private baths; cafeteria in connection; cost \$100,000.

S. C. Florence—American Railway Express Co. will erect \$30,000 building; 1 story; 100x90 ft.; brick and stone.

W. Va., Elkins—R. M. Trickett and C. S. Whitman will erect 3-story hotel.

W. Va., Shinnston—Shinnston Hotel Co., R. S. Johnson and others, will erect \$100,000 hotel, store and office building; 2 stories; 70x80 ft.; brick; Carl Reger, Archt., Traction Bldg., Morgantown. (Previously noted.)

W. Va., Wheeling—Tri-State Hotel Co. incipd. with \$600,000 capital; Tri-State Security Co. Pittsburgh, Pa. (C. F. Miliken, Prest., J. W. Byrer, Treas.) financing project; is reported to erect 14-story hotel at Market and 14th Sts.; steel frame faced with terra cotta and tapestry brick; ornamental porticos; 291 rooms including 10 two and 3-room housekeeping apartments, 15 sample rooms on third floor and 36 small bedrooms on 14th floor; 5 stores on first floor; 1 service and 2 passenger elevators.

Miscellaneous.

Mo., Branson—Assembly-Presbyterian Assembly of Southwest, Dr. G. P. Baily, Prest., Kansas City, will erect \$20,000 hotel, auditorium to seat 1,000, and 40-room home for ministers.

Tenn., Johnson City—Library—Wayne Williams Memorial Library will erect \$35,000 building; 1 story and basement; 48x90 ft.; brick; stone trim; bids opened Sept. 25.

Tex., Tyler—Clubhouse—Dixie Country

Club, W. B. Marsh, Chrmn. Bldg. Comm., will erect \$10,000 clubhouse.

Va., Danville—Undertaking Establishment T. R. Fox & Son will erect \$40,000 building; brick and stucco; E. R. James, Archt.

Railway Stations, Sheds, Etc.

Tex., Ranger—Texas & Pacific R. R., E. F. Mitchell, Ch. Engr., Dallas, will erect passenger station; brick and tile; 42x263 ft.; cost \$75,000; bids opened Sept. 15.

Schools.

Fla., Daytona—Daytona Industrial Institute will erect \$65,000 dormitory; 42x132 ft.; brick and hollow fireproof tile; 5 ply flat roof; yellow pine, oak and concrete floors; ventilators; steam heat; electric lights. Address Jno. A. Rogers, Archt., Box 506, Daytona. (Lately noted.)

Fla., Tampa—County Board of Public Instruction, J. E. Knight, Secy., will receive bids until Sept. 27 to erect 3-story brick wing and 21-ft. brick extension to auditorium of George Washington Junior High School, Michigan and Mitchell Aves.; cost \$40,000; plans and specifications at office Mr. Knight; B. C. Bonfoey, Archt.

Ga., Cumming—Cumming School Dist. voted \$28,000 bonds to erect building. Address County Board of Education.

Ga., Townsend—McIntosh County Board of Education, W. A. Branson, Supt., Darien, will erect 4-room brick school; unit type.

Ky., Richmond—City Board of Education, J. Howard Payne, Clerk, will receive bids until Oct. 17 to erect 20-room school; 2 or 3 stories; brick; cost \$100,000; plans and specifications at office C. C. & E. A. Weber, Architects, Miller Bldg., Cincinnati, O. (Lately noted.)

La., Gillis—Calcasieu Parish School Board, Lake Charles, rescinded call for election on \$10,000 bonds to erect school; will call election later. (Lately noted.)

La., Ville Platte—Evangeline Parish School Board, Dr. J. C. Vidrine, Prest., will receive bids until Oct. 6 to erect 3-story brick school; plans and specifications at office Favrot & Livaudais, Ltd., Architects, Title Guarantee Bldg., New Orleans, and office School Board.

Md., Baltimore—Public Improvement Commission, Robt. Garrett, Chrmn., Garrett Bldg., will erect Montebello Park School; 3 stories; Italian and Romanesque architecture; 26 class rooms; combined auditorium and gymnasium in separate building and 2 or more covered pavilions 35x50 ft. each; cost about \$500,000; Clyde N. Friz and Nelson Friz, Architects, Lexington Bldg. (Previously noted.)

Miss., Tula—Tula Consolidated School Dist. Trustees, W. T. White and others, will erect school; bids opened Sept. 23. Address Lafayette County Superintendent of Education, Oxford. (Lately noted to open bids Aug. 26.)

Mo., Columbia—University of Missouri will erect power house lately noted; 50x200 ft.; steel and brick; tile or composition roof; concrete floors; metal doors; wire glass; steel sash and trim; cost \$125,000; plans by Prof. Guy D. Newton, Engr., University of Missouri. Address E. E. Brown, University of Missouri. (See Machinery Wanted—Power House Equipment; Piping; Valves; Fittings; Roofing; Pipe Covering.)

Mo., Springfield—Southwest State Teachers College Board of Regents plans to erect \$250,000 science and training school.

Mo., Versailles—Board of Education, Samuel Daniels, Secy., will erect high school; brick; stone trim; composition roof; wood floors; cost \$31,000; bids opened

Sept. 23; F. B. Miller, Archt., Jefferson City. (Lately noted.)

N. C., Charlotte—City Board of Education will erect high school; 30 class rooms and laboratories; fireproof; brick; cost \$300,000; Lockwood Greene & Co., Architects, 101 Park Ave., New York; also erect building for colored pupils in Second Ward; L. L. Hunter, Archt., Charlotte. (Lately noted in part.)

N. C., Cherryville—County Board of Education, F. D. Hall, Supt., Gastonia, will erect \$20,000 rural school; 1 story and basement; 75x150 ft.; brick; construction by owner.

N. C., Dunn—Board of Education will erect \$100,000 grade school; brick; Chas. C. Wilson, Archt., Palmetto Bank Bldg., Columbia, S. C., and Wilson and Gastonia, N. C.

N. C., Elizabeth City—Colored State Normal School will erect building; 2 stories and basement; 90x150 ft.; brick and stone; cost \$180,000; J. A. Salter, Archt., Commercial Bank Bldg., Raleigh. (Lately noted.)

N. C., Henderson—City Board of Education, J. T. Alderman, Supt., will erect 2 school buildings; brick; cost \$65,000; \$100,000 bonds voted to erect structures and repair other buildings. Address J. H. Bridgers.

N. C., Fremont—Board of Education will erect \$75,000 school; brick; Benton & Benton, Architects, Wilson. (Lately noted.)

N. C., Hillsboro—Board of School Commrs. will erect \$100,000 high school; 2 stories; brick and stone; Milburn, Heister & Co., Architects, Union Savings Bank Bldg., Washington, D. C. (Previously noted.)

N. C., Kernersville—Kernersville School Dist. voted \$25,000 bonds; Prof. R. A. Sullivan, School Supt. (Lately noted.)

N. C., Laurinburg—Board of Education, D. K. McRae, Chrmn., will erect addition to high and grade school; 2 stories and basement; 80x135 ft.; brick; stone trim; Geo. W. Rogers, Archt., Trust Bldg., Charlotte. (Lately noted.)

S. C., Landrum—Board of Education will erect \$25,000 addition to grade school; 2 stories and basement; 70x80 ft.; brick; Rudolph E. Lee, Archt., 31 N. Tryon St., Charlotte, N. C.

N. C., Mocksville—Mocksville Consolidated School Dist. voted \$45,000 bonds to erect building. Address County Board of Education.

N. C., Newell—County Board of Education, J. N. Matthews, Supt., Charlotte, will erect 10-room high school; brick, rolling partitions. Address M. G. Yerton, Newell. (Lately noted.)

N. C., Newport—Carteret County Board of Education, M. L. Wright, Supt., Beaufort, will erect brick school building; bids received until Sept. 20; heating and plumbing under separate contracts; plans from Frank B. Simpson, Archt., Raleigh.

N. C., West Hickory (Sta. Hickory)—School Dist. voted \$60,000 bonds to erect high school. Address County Board of Education, Newton. (Lately noted.)

N. C., Raleigh—North Carolina State College of Agriculture and Engineering, Dr. W. C. Riddick, Prest., will erect Mechanical Engineering Building; 72x180 ft.; 2 stories; reinforced concrete, brick, hollow fireproof tile, interior tile and ornamental terra cotta; composition roof; composition, hardwood and concrete floors; metal doors, wire glass; ventilators; steel sash and trim; steam heat from central plant; G. Murray Nelson and Thos. W. Cooper, Architects; plans ready about Oct. 1. Address Dr. W. C. Riddick, Prest. (Lately noted.)

N. C., Winston-Salem—Board of Aldermen called election Oct. 25 on \$1,500,000 bonds to include \$1,000,000 for sites, constructing, rebuilding and enlarging schools; \$100,000 for parks and playgrounds; \$50,000 for enlarging City Memorial Hospital. (Lately noted.)

Okl., Cushing—Board of Education will erect \$90,000 school; 2 stories and basement; 64x186 ft.; brick; stone trim; bids opened Sept. 15; J. O. Bradley, Archt., Pawhuska. (Previously noted.)

S. C., Greenville—Poplar Springs Dist. No. 5-B plans to issue \$12,000 bonds; B. E. Greer, W. G. Fowler and B. A. Thomason, Trustees.

S. C., Pickens—Board of Education, H. H. Hoitt, Chrmn. Bldg. Comm., will erect grade school; 2 stories and basement; brick and stone; cost \$12,000; construction by owner.

Tenn., Columbia—City Board of Education will erect addition to Andrews School; 2 stories; 89x25 ft.; brick; cost \$13,000; bids opened Sept. 20; plans and specifications at office C. D. Adkisson, Chrmn Bldg. Comm., Adkisson & Pigg Bros.' store.

Tenn., Memphis—City Board of Education, H. Peres, Lyceum Bldg., will erect \$25,000 addition to Merrill School; 1 story; brick; stone trim; Jones & Furbinger, Archts., American Savings & Trust Bldg.

Tex., Mineral Springs—Board of Education called election Oct. 3 on school bonds.

Tenn., Nashville—State Board of Public Instruction, J. B. Brown, Secy., State House, will remodel and erect addition to colored school for blind; 2 or 3 stories; brick; cost \$20,000; C. K. Colley, Archt., Fourth and First Natl. Bank.

Tenn., Pleasant View—County Board of Education, R. H. Duke, Supt., Ashland City, will erect \$15,000 school; 3 units; 60x50, 60x50 and 48x80 ft.; frame; wood shingle roof; wood floors; plaster board; rolling partitions; steam heat; Dougherty & Gardner, Archts., Stahlman Bldg., Nashville. (Lately noted.)

Tex., Robert Lee—Robert Lee School Dist. voted \$16,000 bonds to erect building; rock construction. Address County Board of Education.

Tex., Rockdale—School Board will erect high school and brick school for negroes; C. H. Page & Bro., Archts., Austin.

Va., Crewe—Winningham District School Board, S. E. Marks, Chrmn., will complete Crewe High School; \$50,000 bonds voted. (Lately noted.)

Va., Kentuck, R. D. Danville—Board of Education will erect \$30,000 school; 2 stories and basement; 45x90 ft.; brick; Heard & Chesterman, Archts., Danville.

W. Va., Nellis—American Rolling Mills, J. A. Woodman, Supt., will erect school; 1 story and basement; 78x54 ft.; brick and reinforced concrete; concrete floors; Malcolm & White, Archts., 404 Odd Fellows Bldg., Charleston. (Previously noted.)

W. Va., Union—Union District Board of Education, R. L. McMillan, Secy., Lost Creek, R. F. D. No. 1, will receive bids until Sept. 24 to erect frame gymnasium building; plans and specifications at office Edw. J. Wood & Son, Archts., Lowndes Bldg., Clarksburg, and office Board of Education, Milford.

Stores.

Fla., St. Petersburg—Alexander & Thorn will erect 1-story building at Central Ave. and 7th Sts.; 8 stores; cost \$20,000.

Mo., Cape Girardeau—Cape Girardeau

Building & Loan Assn., plans to erect 5 story business block; cost \$100,000.

Mo., St. Louis—Chas. Rosemeyer, 3903 Lee Ave., will erect store and apartment building in Virginia Park; 27x40 ft.; brick and stucco; cost \$20,000.

N. C., Greensboro—J. A. Smith will erect building at Greene and Gaston Sts.; 20x115 ft.; 3 stories; retail store on first floor; offices above; gas and electric lights; cost \$30,000.

N. C., Durham—R. H. Wright will erect store; 3 stories and basement; 120x70 ft.; brick; Heard & Chesterman, Archts., Peoples Bank Bldg., Lynchburg, Va.

S. C., Newberry—Jesse L. Burns will erect \$15,000 business building; 2 stories; 30x50 ft.; brick and stone.

Tex., Dallas—Walter G. Miller, will erect 2-story brick store, 828-30 Jefferson St.; cost \$11,000.

Tex., Dallas—I. Rude, Denver, Colo., is reported to erect 3-story structural steel building at Hardwood, Olive, Elm Sts. and Pacific Ave. for store, bank and market place; 38,000 sq. ft. floor space.

W. Va., Princeton—A. B. Shannon will erect \$30,000 store and office building; 42x60 ft.; brick; stone trim; Wysong & Jones, Archts.

Theaters.

La., St. Joseph—L. Blackman will erect moving picture theater; 25x75 ft.; seating capacity 250; Bost & Moss, Archts., Natchez, Miss.

Tex., Temple—W. F. Sonneman, Waco, leased brick building on Main St. and will expend \$15,000 to remodel for theater.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Fla., Daytona Beach—Mrs. Mary Ruger will erect \$10,000 apartment house; stucco and frame; composition shingle roof; 26x54 ft.; John A. Rogers, Archt.-Contr., Box 506, Daytona.

W. Va., Charleston—C. A. Potterfield will erect \$20,000 apartment house; 40x80 ft.; brick; sheet composition roof; double oak and concrete floors; hollow fireproof and interior tile; safes; Wallace Knight, Archt.-Contr. (Lately noted.)

Association and Fraternal.

W. Va., Mullens—Masonic Lodge will erect \$40,000 temple; 2 stories; 40x100 ft.; Meador & Handloser, Archts., R. & P. Bldg., Huntington; Earley Bros., Contrs., Mullens.

Bank and Office.

Md., Bethesda—Methodist Protestant Church will erect building; Hastings & Parsons, Salisbury, Contrs. at \$101,741. (Previously noted.)

Tex., Beaumont—San Jacinto Life Insurance Co., H. M. Hargrove, Prest., will erect \$500,000 building at Orleans and Fannin Sts.; 12 stories; steel frame; Barrett specification roof; hardwood and cement floors; hollow fireproof tile; metal ceilings; ornamental terra cotta; metal doors; mail chutes; steel sash and trim; Sanguinet, Staats & Gottlieb, Archts., Fort Worth, and

Va., Richmond—Richmond Woodland Theater Assn., Dr. Leo Arthur Pusey, Chrmn. Comm., Box 75, Manchester Station, Richmond, will erect open air theater; seating capacity 40,000; 600x800 ft.; entrances, granite; cement walks and steps; ornamental terra cotta; interior tile; electric lights; Chas. F. Gillette, Landscape Archt., and Engr., Box 945, Address owner. (See Machinery Wanted—Theater Equipment (Open Air); Pergolas; Furniture; Stair-ways (Moving).)

Warehouses.

Fla., Tampa—Logan Bros. will erect \$30,000 warehouse at 908-10 Twigg St.; 100x100 ft.; brick, concrete, and steel; composition roof; concrete and tile floors; elevators, \$2,500; construction by owner. (Lately noted.)

Ga., Atlanta—Stein & Co. will erect warehouse; Barrett specification roof; ornamental terra cotta; metal doors; rolling partitions; Lockwood & Poundstone, Archts., Forsyth Bldg.

Ky., Louisville—R. J. Reynolds Tobacco Co., Winston-Salem, N. C., will erect \$75,000 warehouse at 818-24 S. 28th St.; 1 story; 132x330 ft.; steel; F. L. Brown, Engr., Winston-Salem; bids until Sept. 30. (Lately noted.)

Ky., Maysville—Kirk & Key Co. will erect \$75,000 tobacco warehouse; brick and concrete.

N. C., Henderson—Henderson Grocery Co. will erect \$12,000 storage building; 80x72 ft.; brick; wood floors; hand elevator; Linthicum & Son, Archts., Raleigh.

Va., Petersburg—Harrison Construction Co., Union and Washington Sts., will repair burned warehouse; 4 stories; brick; cost \$25,000; plans and construction by owner.

Va., Richmond—H. Carl Messerschmidt, Mutual Bldg., is preparing plans for \$20,000 warehouse; 2 stories and basement; brick.

Churches.

D. C., Washington—Emery Methodist Church, Rev. Dr. F. J. Prettyman, Pastor, will erect \$75,000 building; 1 story, gallery and basement; Milburn, Heister Co., Archts., 710 14th St., N. W.; A. L. Smith Co., Contr., Woodward Bldg.

Ga., Roseville—Methodist Episcopal Church, Rev. J. L. Griffith, Pastor, will erect building; 2 stories and basement; 80x130 ft.; plans by owner; McDevitt & Fleming, Contrs., First Natl. Bank Bldg., Chattanooga, Tenn.

Ky., Covington—Latonia Christian Church, Rev. H. C. Runyan, 3715 Huntington Ave., Cincinnati, O., interested, will erect \$60,000 building; 117x60 ft.; 1 story and basement; balcony; David Davis, Archt., 1620 First Natl. Bank Bldg., Cincinnati; Northcutt Bros., Contrs., 226 W. 12th St., Covington; Carl Bros., Builders' Exchange, Cincinnati, excavation and concrete work.

Ky., Fort Thomas—First Baptist Church will erect building; 1 story and basement; cost \$40,000; C. C. & E. A. Weber, Archts., Miller Bldg., Cincinnati, O.; J. K. Mays, Fort Thomas, Contr. for carpentry.

Ky., Somerset—Methodist Episcopal Church will erect \$150,000 building for church and community house; 122x128 ft.; 4 stories; reinforced concrete; slate and concrete roof; combination heating plant; Turbo generator and storage battery for lighting; ornamental terra cotta; interior tile; rolling partitions; wire glass; concrete floors; ventilators; steel sash and trim; Associated Engineering Co., 106 College St., Archt. and Constr. Engr. (Lately noted.)

Tenn., Maryville—First M. E. Church will erect \$60,000 building; 1 story and basement; R. D. Graf & Sons, Archts., 607 Arnstein Bldg.; Warshaw Bros., Contrs., Empire Bldg., both Knoxville. (Lately noted.)

Tenn., Nashville—East End M. E. Church, Rev. A. J. Morgan, Pastor, 111 S. 13th St., will erect \$25,000 Sunday school addition; 2 stories and basement; 35x126 ft.; H. C. Hibbs, Archt.; Foster Creighton Co., Contr., both Fourth and First Natl. Bank Bldg. (Lately noted.)

City and County.

Fla., Lake Worth—Casino—City will erect \$100,000 casino on Lake Ave, lately noted; 65x122 ft.; with bath house wing, 40x100 ft.; fireproof; prepared and built-up tile on concrete roof; hardwood, cement and marble floors; hollow fireproof tile; ornamental terra cotta; interior tile; wire glass; ventilators; 9 store rooms, office, restaurant, 140 lockers and arcade on first floor; 146 lockers, 4 showers and dance hall on second; swimming pool; fishing pool; V. J. McCoy, Archt., H. C. Daniels, Contr., Box 5, South Palm Beach. (See Machinery Wanted—Building Material; Steel (Reinforcing); Glass (Wire); Tile.)

Md., Baltimore—Engine Houses Board of Awards, Mayor Wm. P. Broening, Prest., will erect fire engine house No. 52 at Auchenoroly Ter. and Morris Ave., cost \$34,000; No. 50 at 5th Ave. and 14th St., Canton, cost \$33,000; No. 53 on Swann Ave., nr. Edmondson Ave., cost \$19,927; Police Department garage on 1st Ave. between Carroll and Potomac Sts., Brooklyn, cost \$6,441; Fred. Thomas, Archt., 135 N. Kenwood Ave.; Chas. L. Stockhausen Co., Contr., Gay and Water Sts. (Lately noted.)

Tex., McKinney—Auditorium, etc.—City Comsn. will erect live stock pavilion and auditorium; cost \$26,000; 80x100 ft. with annex, 64x100 ft.; brick, concrete, steel and wood; asbestos roof; concrete floors; Sparger & Peters, Archts., Bonham; Morgan, Young & Allmon, Contrs., Sherman. (Lately noted.)

W. Va., Ronceverte—Methodist Episcopal Church, South, Rev. W. C. Sponaule, Pastor, will erect \$40,000 building; brick; 1 and 2 stories and basement; 85x46 ft.; slate or Johns-Manville asbestos shingle roof; oak floors; steam heat; electric lights; hollow fireproof tile; ornamental terra cotta; rolling partitions; G. R. Ragan, Archt., Roanoke, Va.; R. L. Wright, Contr. Ronceverte. (Lately noted.)

Dwellings.

D. C., Washington—Walter Leaman, 3351 Mt. Pleasant St., will erect residence; 2 stories, basement and attic; 42x55 ft.; hollow tile and face brick; slate roof; concrete and hardwood floors; hollow fireproof tile; ornamental terra cotta; safes; J. A. Hunter,

Archt.-Contr., 1881 Newton St. (Lately noted.)

D. C., Washington—C. Ashmead Fuller, Wardman Park Hotel, will erect \$20,000 residence and garage; about 50,000 cu. ft.; brick; colonial design; slate roof; oak floors; hot water heat; electric lights; hollow fireproof tile; interior tile; T. J. D. Fuller, Archt., 2317 Ashmead Pl.; Harry Wardman, Contr., 1430 K St. (Lately noted.)

Fla., DeLand—C. R. M. Sheppard will erect residence lately noted; 2 stories; 7 rooms; frame and stucco over Bishopric board; asphalt and slate coated roof; oak and pine floors; interior tile; warm air heat; electric lights; A. T. Cairns, Archt., Address Rufus Knight, Contr. (See Machinery Wanted—Flooring; Tile.)

Fla., Jacksonville—A. W. Inglis, 1600 College St., will erect 2 dwellings; cost \$10,000 each; 2 stories; 28x40 ft.; brick veneer; composition shingle roofs; oak and pine floors; hot air heat, \$500; city lights; R. B. Parramore, Contr. (Lately noted.)

Ky., Harlan—Dr. W. P. Cawood will erect \$10,000 residence; 2 stories and basement; R. F. Graf & Sons, Archts., Arnstein Bldg., Knoxville, Tenn.; General Constr. Co., Contr., Harlan.

Md., Baltimore—John S. Murphy, 6 Englewood Rd., will erect 2-story frame residence on Merrymount Rd., nr. Audley Rd.; cost about \$10,000; 40x39 ft.; slate roof; Willard E. Harn Co., Inc., Contr., 2341 Oak St. (Lately noted.)

N. C., Asheville—Mrs. N. Louise Stevenson, 1305 Kesner Bldg., Chicago, will erect \$10,000 residence; 2 stories and basement; 28x40 ft.; Ronald Greene, Archt., 407 Oats Bldg.; Ralph Arbogast, Contr., both Asheville.

N. C., Charlotte—Ida Hand will erect \$10,000 residence on W. 9th Ave.; 10 rooms; C. A. Mullis, Contr.

N. C., Greensboro—Fitzhugh Lee will erect \$15,000 residence; 2½ stories and basement; 35x43 ft.; J. D. Guillet, Archt., Borden Bldg.; J. W. Jones, Contr.

N. C., Henderson—Riggan Lumber Co., C. D. Riggan, Prest., has contract to erect 10 dwellings.

S. C., Chester—T. G. Moffatt will erect residence on Walnut St.; Yandle & Burris, Contrs.

S. C., Orangeburg—St. Paul's M. E. Church will erect \$28,000 parsonage; 10 rooms; frame and brick veneer; slate roof; pine floors; steam heat, \$1800; Chas. C. Wilson, Archt., Palmetto Bank Bldg., Columbia; Turner & Vaughn, Contrs., Sumter. (Lately noted.)

Tenn., Knoxville—Albert G. Hop will erect \$16,000 residence; 2 stories and basement; John P. Staub, Archt., New York; Thomas & Turner, Contrs., Empire Bldg., Knoxville.

Tenn., Knoxville—C. O. Pennington will erect \$15,000 residence; 2 stories and basement; 70x55 ft.; Dutch colonial design; A. E. Gredig, Archt., 219 Mercantile Bldg.; Jordan Realty Co., Contr., Market St.

Tenn., Murfreesboro—Chas. Cason will erect colonial residence; 2 stories and basement; 32x46 ft.; W. R. Bell, Archt.; Mougans Bell Co., Contr.

Tex., Dallas—H. J. Curtis will erect \$10,000 residence in Highland Park; 2 stories; 50x54 ft.; brick veneer; tiled roof; double oak floors; hot water heat, \$1500; C. D. Hill & Co., Archts.-Contrs., 1209½ Main St. (Lately noted.)

Texas, San Antonio—Ike S. Kampmann will erect \$25,000 residence; 2 stories; stone; slate roof; stone, tile and wood floors; hot air heat; Henry T. Phelps, Archt., Hicks Bldg.; F. L. Scharper, Contr., W. Houston St. (Lately noted.)

Va., Richmond—Wellington Development Corp. will erect 20 two-story frame dwellings on Hickory St.; cost \$30,000; Davis Bros., Contrs.

Hospitals, Sanitariums, Etc.

Ga., Augusta—Children's Hospital Assn. will erect nurses' home; cost \$12,500; 40x50 ft.; stucco; composition roof; wood floors; steam heat; electric lights; G. Lloyd Preacher & Co., Archts.; C. H. Van Ormer, Contr. (Lately noted.)

N. C., Asheville—Fred. Seeley, Mgr. Grove Park Inn, will erect \$25,000 children's hospital; 2 stories; 50x100 ft.; Smith & Carrier, Archts., Majestic Theater Bldg.; W. Cressman, Contr., 22 S. Park Sq. (Previously noted.)

Va., Danville—Anti-Tuberculosis League will erect Hilltop Sanatorium; cost \$18,250; 200x40 ft.; 2-story administration building in center, 50x50 ft.; 1-story wings on each side; ordinary construction; composition shingle roof; rift pine floors; Heard & Chesterman, Archts., Danville and Lynchburg; J. C. Dodd, Contr., Stokesland. (Lately noted.)

Hotels.

Ga., Augusta—North Augusta Land Co., Jas. T. Jackson, Prest., will develop 5000 acres of land, ultimately involving expenditure of \$5,000,000 to \$10,000,000; rebuild Hampton Terrace Hotel; 350 rooms; fireproof; cost \$2,000,000; Hewitt & Ash, Archts., Bulletin Bldg., Philadelphia; Weller Construction Co., Contr., 816 14th St., N. W., Washington, D. C.; also plans bungalow colony, moving picture industry, etc. in connection. (Previously noted.)

Mo., Kansas City—Walter E. Eysell, 15 W. 10th St., will erect hotel at 16 E. 24th St.; 11 stories and basement; 26x96 ft.; cut stone, terra cotta and tapestry brick; 111 rooms; cost \$150,000; Brostrom & Drotts, Archts., Reliance Bldg.; Mosby-Goodrich Constr. Co., New York Life Bldg. (Lately noted.)

Va., Accomac—Roy White and Jas. Turlington will erect \$30,000 hotel; 3 stories and basement; 50x54 ft.; H. B. Pilchard, Contr., Pocomoke, M.

Ala., Montgomery—Montgomery County Board of Revenue, J. W. Heustess, Clerk, rejected bids and will have plans revised for erection of following schools; Pine Level; Frederick Ausfeld, Archt., Bell Bldg., Grange Hall; Frederick Ausfeld, Archt.; Cloverdale; Frank Lockwood, Archt., 121 Adams St.; Chisholm; Okel & Cooper, Archts.; Catoma; C. Frank Galliher, Archt., First Natl. Bank Bldg.; all structures brick; cost \$300,000. (Lately noted.)

Fla., Daytona—Wm. V. Lawrence, Bronxville, New York, will erect \$30,000 hotel; 100x125 ft.; stucco; frame and hollow fireproof tile; composition shingle and 5-ply flat roof; yellow pine, hardwood and concrete floors; interior tile; ventilators; steam heat, \$2400; electric lights; Bates & Howe, Archts., Daytona. Address Jno. A. Rogers, Contr., Box 506, Daytona. (Lately noted.)

Miscellaneous.

Ala., Tuscaloosa—Clubhouse—Tuscaloosa Country Club will erect \$15,000 clubhouse; 55x46 ft.; 2 stories; concrete and frame; composition shingle roof; pine floors; steam heat; Miller & Martin Archts., Birmingham; A. Laycock & Son, Contrs., Tuscaloosa. (Previously noted.)

Tex., Houston—Exposition—Houston Fair & Exposition Co., C. J. Kirk, Secy., will erect buildings for agricultural, manufacturing, livestock, automobile, poultry, dog, pet stock and rabbit exhibits; cost \$20,000; Fields-Lutman Lumber Co., Contr.; also erect grandstand to seat 4000. (Lately noted.)

Tex., Temple—Home—Catholic Parish, Father M. Heintzleman, Pastor, will erect home for Sisters of Divine Providence at Westphalia about 20 mi. from Temple; cost \$10,000; contract let.

Schools.

Ga., Columbus—School Board, C. F. Williams, Chrmn., will erect \$10,000 high school on Summerville Hts., Phenix City; Martin & Hickman, Archts.; Butts Lumber Co., Contr.

Ga., Cuthbert—City Board of Education will erect \$60,000 school; 126x140 ft.; brick and steel; wood floors; P. E. Dennis, Archt., Macon. Address Smith & Watson, Contrs., Albany. (Lately noted.)

Ga., Toombsboro—Toombsboro School Dist., F. B. Chambers, Secy.-Treas., will erect \$11,000 to \$12,000 school; brick; metal roof; wood floors. (Lately noted.)

Mo., Belton—Board of Education will erect high school; 190x111 ft.; brick; stone trim; cost \$30,000; J. H. Felt & Co., Archts., Grand Avenue Temple Bldg., Kansas City; S. E. Shultz, Contr., Hamilton. (Lately noted.)

Mo., Cape Girardeau—Teachers College Board of Regents will erect educational building; \$125,000 appropriation.

Mo., Kansas City—School Board will erect Sanford B. Ladd School, 37th St. and Benton Blvd.; Patti-Moore Co., Okmulgee, Okla., contr. at \$138,489 exclusive of heating, plumbing and electrical work. (Lately noted.)

N. C., Asheville—City, Gallatin Roberts, Mayor, will erect Catholic Hill school; Roland Green, Archt.; also erect West Asheville school; Smith & Carrier, Archts. (Previously noted.)

N. C., Ellenboro—Ellenboro School Dist. voted \$25,000 bonds to erect brick school; O. R. Coffield, Secy., Bldg. Comm. (Lately noted.)

N. C., Greensboro—North Carolina College for Women, Dr. Julius I. Foust, Prest., will erect home economics building; 2 stories; brick; Harry Barton, Archt.; L. A. Jackson is lowest bidder at \$22,389; B. MacKenzie, heating at \$1,365. (Lately noted.)

N. C., New Bern—Board of Education, T. A. Green, Prest., will erect \$80,000 grade school; 2 stories and basement; J. F. Gause, Archt., Murchison Bldg., Wilmington; Brock & Daniels, Contrs., New Bern. (Lately noted.)

N. C., Smithfield—Smithfield Graded Dist. School Trustees, F. H. Brooks, Prest., will erect \$93,100 high school; also \$27,000 negro school; former 20 rooms and auditorium; latter 14 rooms and auditorium; brick and stone; ornamental terra cotta; Barrett specification roof for high school; Johns Manville,

for negro school; cement basements; gum flooring; rolling partitions; ventilators; Chas. C. Hook, Archt., Charlotte; Kenyon-Thompson Co., Contr., Raleigh; Grinnell Co., heating for both buildings at \$10,532. (Lately noted.)

Okla., Fisher—Board of Education, M. Filmore, Secy., will erect \$10,000 school; 1 story and basement; brick and stone; composition roof; A. J. Love & Co., Archts., Richards Bldg.; A. T. Hingle, Contr., First Natl. Bank Bldg., both Tulsa. (Lately noted.)

Okla., Limestone—Board of Education will erect school; one story and basement; cost \$11,000; A. I. Love & Co., Archts., Richards Bldg.; A. I. Hingle Contr., First National Bank Bldg., both Tulsa.

S. C., Clyde—Board of Education will erect \$11,000 rural school; 2 stories; frame and brick veneer; tin roof; wood floors; J. H. Johnson, Archt.; G. P. Knowles, Contr., both Sumter. (Lately noted.)

Tenn., Memphis—City Board of Education, G. W. Garner, Secy., Lyceum Bldg., will erect following buildings: Gordon School; R. S. Wilkes, contr., at \$49,590; Tri-State Plumbing, \$4,962; Dawkins Electrical Co., wiring, \$1,150; Guthrie School; D. D. Thomas & Son, contr. at \$25,680; Crockett Technical High School, R. S. Wilkes, contr. at \$10,428; Jones & Furbinger, American Savings & Trust Co., Archts. for all structures; also erect St. Paul School; D. D. Thomas & Son, contr. at \$42,447; I. W. Hull, heating, \$9,312; Tri-State Plumbing Co., plumbing \$4,316; Le Roy Pope School; B. W. Cooke contr., at \$43,916 and \$3,264; both structures brick; ornamental terra cotta; concrete floors; wire glass; ventilators; steam heat; Regan, Welker & Kramer, Archts., Bank of Commerce Bldg. (Lately noted in part.)

Tenn., Nashville—State Board of Public Instruction, J. B. Brown, Secy., State House, will erect 2-story brick building at State Institution for Blind, 33 Shepard St.; cost \$20,000; Fulcher Brick Co., contr. for brick work; T. J. Christman & Co., carpenter work; Jno. Oman, Jr., foundation and cut stone; Herbrick & Lawrence, electric work; Collins & Neal, painting; F. H. Polk, plastering; J. M. Gallagher, heating and plumbing; C. K. Colley, Fourth and First Natl. Bank Bldg. (Lately noted.)

Tex., Gainesville—City, C. M. Savage, Secy., will erect Newsome Dougherty High School; 3 stories; fireproof; brick, concrete and iron; Wm. A. Tackett, Archt., Sherman; J. E. Johnson Contracting Co., Waco, contr. at \$130,873; T. C. Koriath plumbing Co., Sherman, plumbing and heating, \$19,500; Martin Wright Electric Co., Dallas, lighting, \$4,000. (Lately noted.)

Va., Birds Nest—Eastville Dist. School Board, T. P. Bell, Chrmn., Machipongo, will erect \$28,000 high school; brick; gravel roof; rift pine floors; heating, \$4,000; H. Robert Diehl, Archt., Monroe Bldg., Norfolk; E. C. Smith, Contr., Franklin. (Lately noted.)

Va., Richmond—City Board of Education, C. P. Walford, Clk., 805 Marshall St., will erect grade school in Forrest Hill; 2 stories and basement; 157x94 ft.; brick; cost \$109,409; Chas. M. Robinson, Archt., Times Dispatch Bldg.; Jas. Fox & Sons, Contr., 3501 E. Franklin St. (Previously noted.)

W. Va., Bluefield—Bluefield College will erect administration building; Jno. P. Pettyjohn & Co., Lynchburg, contr. at \$94,500, exclusive of plumbing and wiring; Harry M. Waugh, Bluefield, contr. for excavation; also erect dormitory to accommodate 100 boys; Alex. B. Mahood, Bluefield and R.

H. Hunt, Chattanooga, Tenn., Asso. Archts. (Lately noted.)

W. Va., Sleepy Creek—Sleepy Creek Dist. Board of Education, M. W. Fullerton, Secy., Cheery Run, will erect \$20,000 school; 1 story and basement; 70x80 ft.; 5 rooms; C. E. Kauf, Archt., 712 N. Queen St., Martinsburg; Hiram Karns, Contr., Berkeley Springs.

W. Va., Westmoreland—Ceredo Dist. Board of Education, F. M. Carey, Secy., Kenova, Route No. 1, will erect \$20,000 school; 45x60 ft.; 3 stories; brick; cement foundation; composition roof; edge grain pine floors; concrete basement; gas and electric lights; J. B. Gieske, Archt., Foster Bldg.; J. A. Hughes, Contr., both Huntington. (Lately noted.)

Stores.

Fla., Daytona—E. H. Armstrong will erect 2-story building at First St. and Loomis Ave.; stores on lower floor; 3 apartments of 4 rooms and bath; W. W. Douglas, Contr. (Lately noted.)

Fla., St. Petersburg—Haskell, Preece & Smith will erect \$25,000 store and office building; 40x100 ft.; brick and stucco; built up roof; cement and tile floors; electric lights; metal ceilings; wire glass; Geo. Fellham, Archt., J. B. Smith Bldg.; Glasco & Smith, Contrs. (Lately noted.)

Ky., Ashland—H. C. Dondore will erect \$15,000 store and apartment building; 2 stories; 23x100 ft.; Tyson & Foster, Archts.; W. H. Stone, Contr.

Ky., Louisa—Jas. Woods will erect \$11,000 business building; 40x60 ft.; brick; composition roof; pine floors; metal ceilings; gas heat; electric lights; Eastern Kentucky Lumber & Supply Co. Contr.

Mo., Kansas City—J. N. Mehornay, 11th and McGee Sts., will erect \$165,000 store and loft building; 6 stories; 57x132 ft.; concrete and hollow fireproof tile; composition roof; ornamental terra cotta; tile, terrazzo and concrete floors; steel sash and trim; steam heat; electric lights; electric passenger elevator; McKeeknie & Trask, Archts., 719 Lloyd Bldg.; Mosby-Goodrich, Contrs., New York Life Bldg. (Lately noted.)

Okla., Tulsa—Dan Hunt will erect 5-story department store building at 4th and Main Sts.; 100x100 ft.; foundation to permit erection of 14 stories; structural steel and terra cotta; 1 freight and 3 passenger elevators; Geo. Winkler, Archt.; A. E. Wasielewski, Contr. (Previously noted.)

S. C., Greenville—J. H. Morgan and associates will erect 2-story business building on College St. for Eugene B. Smith agency; Beacham & LeGrand, Archts.; Jamison & Morris, Contrs.

Tex., Dallas—A. C. Rick and associates will erect 2-story brick building on Elm St. between Hardwood and Olive Sts.; 175x310 ft.; brick; cost \$160,000; Chas. Halper, Contr.

W. Va., Ronceverte—Lewis, Hubbard & Co. will erect 3-story brick and concrete building; F. W. Drost, Engr. Contr.

Warehouses.

Ark., El Dorado—Swiley Estate will erect 2-story brick building; cost \$20,000; Christy-Dolph Construction Co., Contr., Dallas, Tex.

Tex., Orange—Orange Transfer Co. will erect brick and tile building; Tom, Howell, Contr.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

N. C., Lincolnton—County Board of Education, L. Bean, Supt., will erect \$20,000 rural school in Middlebrook Dist.; brick; Q. E. Herman, Archt., Hickory.

Tenn., Obion—Board of Education will erect high school; bonds voted.

W. Va., Morgantown—State Board of Control, Jas. S. Lakin, Prest., Charleston, will erect physical education building at University of West Virginia.

Agitator.—Texas-Mexia Refining Co., Telephone Exchange Bldg., Mexia, Tex.—500-bbl. agitator.

Boiler (Water Tube).—John G. Duncan Co., Hackson and Central Sts., Knoxville, Tenn.—Dealers prices on 500 H. P. water tube boiler.

Boilers.—Sim D. Rollins & Co., Minneapolis, Minn.—Four 500 to 700 H. P. boilers, 200 lbs. pressure A. S. M. E.; Babcock, Wilcox or Edgemoor; good condition.

Boilers.—Texas-Mexia Refining Co., Telephone Exchange Bldg., Mexia, Tex.—Two 150-H. P. steam boilers.

Boring Mill.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on second-hand boring mill.

Boxes.—Lubbock Candy Co., M. C. Wilhite, Mgr., Lubbock, Tex.—Wooden and paper boxes.

Boxes (Condenser).—Texas-Mexia Refining Co., Telephone Exchange Bldg., Mexia, Tex.—Six 22x8x6 ft. steel condenser boxes.

Brick.—John T. Glover, Clarksville, Tex.—See Building Material.

Bridge Construction.—Winston County, B. M. McCully, Clk. Supvrs., Louisville, Miss.—Bids until Oct. 3 to build bridges.

Bridge Construction.—Noxubee County, Jno. A. Tyson, Chancery Clk. Board Supvrs., Macon, Miss.—Bids until Oct. 3 to build wooden bridge over Paler Creek; plans, etc., on file.

Bridge Construction.—City of Bristol, Va., S. G. Keller, Mgr., and City of Bristol, Tenn., G. P. Biedleman, Commr.—Bids to construct bridge over Beaver Creek on State St.

Building Material.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—Prices on cement, sand, stone, reinforcing steel, brick, tile, millwork, plastering, etc. for 2 hospital buildings, laundry and refrigerating building at U. S. Public Health Service Hospital, Lake City, Fla.

Building Material.—John T. Glover, Clarksville, Tex.—Samples and prices on common brick, face brick, sand cement and gravel, plaster, plaster board, interior and exterior floor tile work, sash and doors; millwork, reinforcing iron, miscellaneous structural steel, metal lath, water proofing and corner leads for 2-story residence.

Building Material.—M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md.—Sub-bids and estimates until Sept. 26 for dispensary at Navy Yard, Washington, D. C.; specification No. 4486.

Building Material.—H. C. Daniels, Box 5, South Palm Beach, Fla.—Building material for \$100,000 bath house and casino, including reinforcing steel, metal lath, rib steel, wire glass, mosaic and roofing tile, quarry tile, cement or composition columns, caps and bases.

Building Material.—M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md.—Sub-bids and estimates until Sept. 20 to erect unit of nurses home at University of Maryland, Lombard and Greene Sts.

Bulkhead.—Treasury Dept. at U. S. Coast

Guard Headquarters, W. E. Reynolds, Commandant, Darby Bldg., Washington, D. C.—Bids until Sept. 28, construct crossotod wood sheet pile bulkhead at Coast Guard Depot, South Baltimore, Md.

Cable (Steel).—Limestone Lime Co., Front Royal, Va.—300 ft. of 1½ steel cable suitable for ferry boat use across river; can use second-hand material; names and addresses of dealers.

Canning Plant Machinery.—A. K. Mattingly, Box 96, Weslaco, Tex.—Names and addresses mfrs. of mchy. for canning plant.

Cartons, etc.—Lubbock Candy Co., M. C. Wilhite, Mgr., Lubbock, Tex.—Cartons, etc.

Cement.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—See Building Material.

Cement Plaster Machinery.—Patton Cement Plaster Co., Rotan, Tex.—Bids until Oct. 1, data and prices on latest improved 8 kettle plaster making mchy.

Coal.—Duval County Commrs.—Chas. A. Clark, Chmn., Jacksonville, Fla.—Bids until Sept. 23 to furnish 125 tons coal, delivered at Court House and County Jail; information with County Purchasing Agt., Room 206, County Court House Bldg.

Compressor (Air).—Piedmont Electric Co., Electrical Bldg., Asheville, N. C.—Prices on belted type horizontal air compressor which will have displacement capacity of approximately 350 cu. ft. free air and suitable for maximum pressure of 90 to 100 lbs.

Gravel.—Vernon Parish, E. E. Jordan, Secy. Police Jury, Leesville, La.—Bids until Oct. 3 to furnish gravel for Leesville highways; 12,600 cu. yds. washed gravel, 25,000 cu. yds. sand-clay gravel not less than 40 per cent stone and 37,600 cu. yds. sand clay gravel not less than 50 per cent stone; information from State Highway Dept., New Orleans, La.

Creamery Equipment.—Buchanan Produce Exchange, Rhodes G. Lockwood, Propr., Buchanan, Va.—Tanks, heaters, pasteurizers, separators, scales, pumps, etc.

Derrick Boat.—Columbia Granite & Dredging Co., 3036 K. St., N. W., Washington, D. C.—Derrick boat to lift up to 8 tons, equipped to handle clam shell if needed, about 50 ft. boom, hull need not be larger than 60x24 ft.; substantial construction.

Ditching Machine.—Tinsley Construction Co., Roanoke, Va.—Ditching Machine to cut 12 ft. deep.

Drainage.—Honey Creek Drainage Dist., R. E. Cavanaugh, Secy., Trenton, Mo.—Bids until Sept. 19 to construct drainage system; 422,066 yds. excavation, 82 acres clearing; M. H. Mooney, Engr.

Drilling (Well).—Town of Mocksville, N. C., T. M. Hendricks, Clerk.—Bids until Sept. 23 to drill one or more 10-in. wells to solid rock reducing to 8-in., extending to depth necessary to supply 100 gals. of water per min.; M. E. Miller, Engr.

Drilling and Boring Machine.—B. S. H. Harris, Prest., Harris-Brockman Mfg. Co., Greenville, S. C.—Vertical turret drilling and boring machine.

Drill Press.—See Machine Shop Equipment.

Dynamo (5 H. P.).—See Machine Shop Equipment.

Electrical Equipment.—Malcolm H. Crump, Conslt. Engr., Elks Bldg., Bowling Green, Ky.—Prices on turbines, dynamos for 500 lights and wire one or more miles of light.

Elevators.—Jose Gonzalez & Co., Jose Gonzalez, Mgr., Fort Myers, Fla.—Elevators.

Engine.—William Jones, Prest., Bonnie Coal Co., Tuscaloosa, Ala.—10x12 Flory hoist engine; prefer second-hand if in good condition.

Engine (Gasoline).—Thos. I. Nelson, R. F. D. No. 4, Tuscaloosa, Ala.—See Saw Mill Equipment.

Excavator (Dragline).—J. G. Skelton, Richmond, Va.—Dragline excavator, caterpillar mounted, ¾ to 1 yd. bucket capacity; state price and location for inspection.

Flooring.—Rufus Knight, DeLand, Fla.—Hardwood flooring for 2-story 7-room residence.

Furniture.—Malcolm H. Crump, Conslt. Engr., Elks Bldg., Bowling Green, Ky.—Prices on furniture and equipment for tavern for Lost River Cave Co.

Furniture.—Richmond Woodland Theater Assn., P. O. Box 75, Manchester Station, Richmond, Va.—See Theater Equipment (Open Air).

Garage Equipment.—W. J. Barnhill & Son, Madisonville, Ky.—General garage equipment.

Garage Equipment.—Progressive Auto Service Co., 207 West Broadway, Louisville, Ky.—Garage equipment including electric drills, lathe, air pump, etc.

Glass (Wire).—H. C. Daniels, Box 5, South Palm Beach, Fla.—See Building Material.

Generator (Turbo).—National Power Machinery Co., 1914 Scranton Road, Cleveland, O.—500 K W 3 phase, 60 cycle, 2300 volt turbo generator with surface condenser.

Generator.—National Power Machinery Co., 1914 Scranton Road, Cleveland, O.—100 K W 3 phase, 30 cycle, 440 volt belted generator; state details with price.

Grinder (Open Door).—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on No. 1 to 1½ open door grinder.

Heaters.—See Creamery Equipment.

Heating.—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Bids in duplicate until Sept. 21 at office of Richard Gwinn, City Register, City Hall, to install hot water heating in engine houses No. 3, 9 and 14; drawings and specifications at office of Wm. F. Crowther, Inspector of Buildings, City Hall.

Heating Apparatus (Hot Water).—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until September 21, install hot water heating apparatus in engine houses Nos. 3, 9 and 14; H. G. Perring, Chief Engr.; J. F. Crowther, Inspector of Buildings.

Heating and Plumbing System.—L. S. Gilmore, Chmn., Escambia County Commrs., Pensacola, Fla.—Bids until Sept. 27 to repair heating and plumbing system also painting at County Jail Building.

Iron.—John T. Glover, Clarksville, Tex.—See Building Material.

Kettles (Copper).—American Peanut Products Co., C. E. Reick, Prest., Waverly, Va.—Names and addresses mfrs. of confectioners chocolate, shredded cocoanut and round bottom copper candy cooking kettles.

Lathe.—B. S. H. Harris, Prest., Harris-Brockman Mfg. Co., Greenville, S. C.—6-in. hollow spindle turret lathe.

Loaders (Wagon).—Boyd & Alvis, Winnaboro, Tex.—Prices on wagon loaders.

Light and Power Plant Material.—City Commrs. of Amory, Miss.—Bids until Oct. 17; line wire; line construction material; meters; transformers; street lighting fix-

tures; engines; generators; exciters; boilers; boiler feed pumps; feed water heaters; concrete stack and various other materials necessary for construction light and water plant; specifications obtainable from Chas. Lamon, Water and Light Commr., Amory and F. G. Proutt, Consit. Engr., Memphis, Tenn.

Liquid Asphalt.—Hernando County Commrs., Brooksville, Fla.—Bids until Oct. 3 to furnish county 50 to 100,000 gals. liquid asphalt; specifications for material on file with H. C. Mickler, Clk.

Locomotives (Electric).—National Power Machinery Co., 1914 Scranton Road, Cleveland, O.—15 ton, 250 volt D. C., 42-in. gauge and 13 ton, 500 volt D. C., 40-in. gauge electric locomotives; state detail and price.

Locomotives.—R. P. Johnson, Wytheville, Va.—Two 20 or 25 ton, 36 gauge saddle tank locomotives.

Lumber.—A-B-C-Millwork Co., W. H. Mac Glashing, Prest.-Mgr., 8 Jackson St., Fort Myers, Fla.—Prices on pine, cypress, oak, gum and cedar for various kinds of interior work.

Machine Shop Equipment.—H. B. Harvey, 306 W. 55th St., New York City.—Power and hand punches for punching holes up to 1/4-in. in 1/2-in. thick metal; shears to cut bars and angles up to 1/2 by 3-in., also for corner matching and shearing sheets up to 16 gauge and 50-in. width; box brake for square bending up to 50 in. length; drill press up to 1-in.; small Latheremere wheel; 5 H. P. dynamo.

Millwork.—John T. Glover, Clarksville, Tex.—See Building Material.

Millwork.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—See Building Material.

Mining Machinery.—Goodman Mfg. Co., Chicago, Ill.—Bids open probably January 1922, mining mch., for 100 ton daily capacity mine.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Sept. 28 to furnish: Oil, bronze; antimony; cement; crucibles; batteries; blades; masthead lights; glasses; pool room supplies; balls; twine; ink, etc. Blank forms and information (Circular 2279) on application to offices of Panama Canal; Asst. Purchasing Agts. at Fort Mason, San Francisco.

Motors.—H. C. Daniels, Box 5, South Palm Beach, Fla.—220 volt, 3 phase auto control motor.

Motor.—National Power Machinery Co., 1914 Scranton Road, Cleveland, O.—100 H. P. 3 phase, 25 cycle, 2200 volt motor, complete with rails, pulley and starting compensator.

Motor.—Thos. I. Nelson, R. F. D. No. 4, Tuscaloosa, Ala.—See Saw Mill Equipment.

Nail Extractors (Electric).—Lorick & Lowrance, Columbia, S. C.—Names and addresses mfrs. of electric nail extractors.

Painting.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—Prices on painting 2 hospital buildings, laundry and refrigerating building at U. S. Public Health Service Hospital, Lake City, Fla.

Painting.—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Duplicate bids until Sept. 21 at office Richard Gwinn, City Register, City Hall, for painting plaster walls of first floor and walls and ceilings of hallways, stairs of first and second floors at No. 12 School, Barre and Warner Sts.; drawings and specifications at office J. F. Crowther, Building Inspector, City Hall.

Painting.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until Sept. 21, painting plaster walls on first floor and walls and ceilings of hallways, stairs of first and second floors at No. 12 School, Barre and Warner Sts.; J. F. Crowther, Inspector of Buildings.

Papers (Waxed).—Lubbock Candy Co., M. C. Wilhite, Mgr., Lubbock, Tex.—Waxed papers to wrap bars and sticks of candy

Pasteurizers.—See Creamery Equipment.

Paving.—City, Improvement Dist. Commrs., Dists. 11, 16, 17 and 18, Cleveland, Tenn.—Bids to construct 6,800 cu. yds. grading; 25,500 sq. yds. paving; 10,720 lin. ft. curbing; 660 lin. ft. combined curb and gutter; 3,900 sq. yds. sidewalk, etc.; plans, etc., with S. D. Newton, Engr.

Paving.—City, Mrs. Frank Seaman, Auditor, Tulsa, Okla.—Bids until Sept. 22 to pave alley in Block 10, Central Park Place addition, alley in Block 7, Lindsey 1st, addition between Guthrie Ave. and Frisco Ave., alley in Block 3, Bliss Addition between Denver Ave. and Elwood Ave. and First alley east of Denver Ave. between 12th and 13th Sts.; plans, etc., on file.

Paving.—City, F. E. Ross, Engr., Jefferson City, Mo.—Bids until Sept. 26 to surface and resurface High St. between intersection of High and Chestnut Sts.; 12,383 sq. yds. bituminous macadam surface course; \$12,283 sq. yds. reconstructed base course; etc.

Paving.—City, Chas. H. Brown, Mayor Commr., Tampa, Fla.—Bids to pave E. Edison Ave., 3,535 sq. yds.; 16th St., 1,200 lin. ft. curbing; 1,350 sq. yds. pavement; Dekle Ave., 2,910 sq. yds. pavement; Hills Ave., 7,200 sq. yds. pavement and 4,800 lin. ft. curb; specifications, etc., from City Engr.

Paving.—City, L. A. Edwards, City Collector, St. Albans, Vt.—Bids until Oct. 9 to construct 2,420 sq. yds. paving; storm sewers; etc.; plans, etc., with J. M. Oliver, City Engr.

Paving.—State Highway Comsn., Frankfort, Ky.—Bids until Sept. 28 to improve street at Stearns, Ky.; 1.4 mi.; State Project No. 22, Section A, McCrory County; surface with brick; rock asphalt or bituminous macadam, penetration type, 16-ft. wide; specifications, etc., on file.

Paving.—Brunswick County Commrs., W. H. Walker, Ex-Officio Clk. County Commrs., Southport, N. C.—Bids until Oct. 17 to construct 74,000 sq. yds. sheet asphalt, asphaltic concrete or warrentite-bitulithic road paving, complete with necessary curb and pipe drainage; 12 concrete culverts; plans, etc., on file at Southport, and with H. S. Jaudon Engineering Co., Engr., Elberton, Ga.

Pergolas.—Richmond Woodland Theater Assn., P. O. Box 75, Manchester Station, Richmond, Va.—See Theater Equipment (Open Air).

Pipe (Cast Iron).—Eastgate Water Works Roanoke, Va.—10,000 ft. of 4 or 6-in. cast iron water pipe; new or second-hand.

Pipe (Galvanized).—Lime-ton Lime Co., Front Royal, Va.—600 ft. of 1-in. galvanized pipe with couplings; can use second-hand material; names and addresses of dealers.

Piping.—E. E. Brown, University of Missouri, Columbia, Mo.—See Power House Equipment.

Pipe Covering.—E. E. Brown, University of Missouri, Columbia, Mo.—See Power House Equipment.

Plaster Board.—John T. Glover, Clarksville, Tex.—See Building Material.

Road Building Equipment.—Boyd & Alvis, Winnsboro, Tex.—Prices on concrete

paving mixer, equipment and paving reinforcing.

Power Plant Equipment.—City of Crowley, La., J. O. Herpin, City Mgr.—Bids until Oct. 17, power plant equipment, f. o. b. respective points of mfre.; Crude oil engine between 350 and 400 brake H. P., standard rating, complete with all accessories including, exhaust muffler, outboard bearing and extension shaft, to carry direct-connected alternator and exciter, shipped freight prepaid to electrical mfrr.; oil-engine type alternator, 2300 volts, 60 cycle, 3 phase, capacity and speed to suit selected engine without base, shaft or bearings, dampening winding, generator rheostat, discharge resistance, foundation bolts, sole plates and pressing rotor on extension shaft; engine type exciter, capacity and speed to suit selected engine and alternator, without base, shaft or bearings, with rheostat, foundation bolts, sole plates and pressing armature on extension shaft; one switchboard; state earliest possible delivery; plans on file.

Power House Equipment.—E. E. Brown, University of Missouri, Columbia, Mo.—Power house equipment, including piping, valves, fittings, pipe covering.

Pulverizing Mill.—Charles Willms, Jr., Erwin, Tenn.—Continuous pulverizing flint pebble mill to grind feldspar.

Pumps, etc.—See Creamery Equipment.

Pumping Equipment.—H. C. Daniels, Box 5, South Palm Beach, Fla.—6-in. centrifugal pump, motor direct connected 220 volts, 3 phase; pool supply 200 gal. per hr., typhoon pump; 1000 gal. steel tank and auto control motor 220 volt 3 phase for fresh water supply.

Punches.—See Machine Shop Equipment.

Refrigerating Machines.—Buchanan Produce Exchange, Rhodes G. Lockwood, Propr., Buchanan, Va.—Refrigerating machines for cold room.

Refrigerating Plant.—Treasury Dept., Suprv. Argh's Office, Washington, D. C.—Bids until Sept. 21, refrigerating plant in mess hall and kitchen at U. S. Public Health Service Sanatorium, Dawson Springs, Ky.; plans on file.

Re-nickelling Equipment.—Marshall Type-writer Exchange, 107 1/2 W. Austin St., Marshall, Tex.—Outfit or equipment for re-nickelling small parts, such as typewriter parts.

Road Construction.—Citrus County, J. K. Kelley, Chrmn. County Commrs., Iverness, Fla.—Bids to construct permanent highways; bids opened Sept. 19.

Road Construction.—Hernando County Commrs., H. C. Mickler, Clk., Brooksville, Fla.—Bids until Oct. 5 for public road work; plans, etc., on file.

Road Construction.—Milam County, Giles L. Avriett, Auditor, Cameron, Tex.—Bids to improve 8.2 mi. Highway No. 44, Section D; \$45,000; bids opened Sept. 19; plans, etc., from A. F. Mitchell, County Engr.

Road Construction.—Noxubee County Road Commrs., Dist. No. 4, Macon, Miss.—Bids until Oct. 3 to surface 1 mi. road on Shuqualak and Summerville road; sand and clay; plans, etc., with Strong & Bush, Attorneys.

Road Construction.—Osceola County, J. L. Overstreet, Clk. County Commrs., Kissimmee, Fla.—Bids until Oct. 10 to construct 6 mi. road in Special Road and Bridge Dist. No. 3; specifications, etc., on file.

Road Construction.—Randolph County, H. C. Kesling, Clk., Elkins, W. Va.—Bids until Oct. 6 to construct Seneca Pike in Beverly Dist.; plans, etc., from Edward G. Elliott, County Road Engr.

Road Construction.—Kaufman County Permanent Road Comms., Terrell, Tex.—Bids until Oct. 6 on earth work on outer ends of various roads in Precinct 3; W. P. Williams, County Judge; specifications, etc., from Dist. Engr., Room 28, Cartwright Bldg., Terrell.

Road Construction.—Wharton County, J. P. Taylor, County Auditor, Wharton, Tex.—Bids to grade and construct bridges on Wharton-Eagle Lake road, Wharton-East Bernard, Bernard Prairie and other roads; bids opened Sept. 19; plans, etc., from Nagle, Witt Rollins Engineering Co., Engr.

Road Construction.—State Highway Comsn. of Alabama, Montgomery, Ala.—Bids until Oct. 17 to construct 14.67 mi. road between Tuscumbia and Lawrence county line; portion of Decatur-Tuscumbia road; bridges and culverts; plans, etc., on file at Montgomery, and with Div. Engr., Decatur, Ala.

Road Construction.—Abbeville County, L. W. Keller, Secy., Highway Comsn., Abbeville, S. C.—Bids until Sept. 22 to construct 7.57 mi. top-soil road from city limits of Abbeville to Greenwood county line; H. B. Humbert, County Engr.

Road Building Materials.—Boyd & Alvis, Winnsboro, Tex.—Prices on asphalt, cement and sand.

Roller Top Cards.—Box 510, Columbia, S. C.—4 roller top cards for short fibre cotton, state price and condition and description.

Roofing.—E. E. Brown, University of Missouri, Columbia, Mo.—Roofing for power house.

Saw Mill Equipment.—Damascus Lumber Co., Geo. S. Boucher, Mgr., Damascus, Va.—Prices on saw mill equipment including band mill band resaw, edger, lath mill, etc.

Saw Mill Equipment.—Thos. I. Nelson, R. F. D. No. 4, Tuscaloosa, Ala.—Prices on portable band and rip saw with gasoline engine or motor attached.

Scales.—See Creamery Equipment.

Separators.—See Creamery Equipment.

Sewers.—City, of St. Albans, W. Va.—Bids until Oct. 9, to construct 1,500 lin. ft. 12-in. storm sewers; install 3 water boxes; plans, etc., with J. M. Oliver, City Engr.

Sewers.—City, Improvement District Comms., of Dist. No. 11, 16, 17 and 18, Cleveland, Tenn.—Bids opened; to construct 4,550 ft. 12 to 30-in. storm sewers; 10 manholes and 44 inlets; L. L. Woollen, Mayor; plans, etc., with S. D. Newton, Engr.

Sewers.—Sewerage Comsn. of Hagerstown, Md., E. LeRoy Heard, Secy., Police Headquarters Bldg.—Bids until Oct. 11, to install sanitary sewers in streets, alleys and rights of way; 25,000 lin. ft. 6 to 20-in. sanitary sewers with all manholes, foundations and appurtenances; 20,000 lin. ft. 6-in. house connections and 8,000 lin. ft. 4 and 5-in. extra heavy soil pipe; on and after Sept. 16, plans, etc., on file.

Sewers.—City, A. G. Munding, City Engr., Baton Rouge, La.—Bids opened; to construct 600 ft. 8-in. sewer line on St. Ferdinand St. from S. Boulevard to City Canal; plans, etc., on file.

Shelving (Metal Vault).—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until Sept. 30, metal vault shelving for U. S. Post Office and Court House, at Birmingham, Ala.; plans on file or with Custodian at Birmingham.

Shovel.—Albert Bros, Shawsville, Va.—Shovel.

Stacks (Metal Book).—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until Oct. 18, metal book stacks installed in place in U. S. Post Office, Honolulu.

lulu, T. H.; specification on file or with J. W. Roberts, Supvg. Supt., of Construction, Room 403 Post Office and Court House, San Francisco or with Supt. of Construction at Honolulu.

Stair-ways (Moving).—Richmond Woodland Theater Assn., P. O. Box 75, Manchester Station, Richmond, Va.—Moving stair-ways, etc. for open air theater.

Steel.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—See Building Material.

Steel.—John T. Glover, Clarksville, Tex.—See Building Material.

Stills.—Texas-Mexia Refining Co., Telephone Exchange Bldg., Mexia, Tex.—Six 10x30 ft. standard 1 piece bottom stills.

Steel (Reinforcing).—H. C. Daniels, Box 5, South Palm Beach, Fla.—See Building Material.

Steel Tank.—See Pumping Equipment.

Swimming Pool, etc.—J. Willard Sherman, Sulphur Springs, Tampa, Fla.—Data on establishing water sports in connection with swimming pool, interested in porcelain or wire glass shutters, toboggan slides, etc.; to correspond with mfrs. of same.

Tank (Storage).—Oxford Electric Comsn., Box 193, Oxford, Md.—Prices on fuel oil storage tank, steel, double riveted, capacity 10,500 gals.; f. o. b. Oxford.

Tanks.—See Creamery Equipment.

Tanks.—Texas-Mexia Refining Co., Telephone Exchange Bldg., Mexia, Tex.—Two 25,000-bbl., two 1,000-bbl. and three 5,000-bbl. steel tanks; eight 300-bbl. and two 250-bbl. tanks.

Theater Equipment (Open Air).—Richmond Woodland Theater Assn., P. O. Box 75, Manchester Station, Richmond, Va.—Open air theater equipment to include ornamental vases, columns, bird baths, pergolas and lawn furniture.

Tile.—A. Bentley & Sons Co., 616 Atlantic Natl. Bank Bldg., Jacksonville, Fla.—See Building Material.

Tile.—John T. Glover, Clarksville, Tex.—See Building Material.

Tile (Gypsum).—Watkins Hardware Co., Inc., Box 53, Henderson, N. C.—Names and addresses mfrs. of gypsum tile for hearths, etc.

Tile.—Rufus Knight, DeLand, Fla.—Interior tile for 7-room residence.

Tile.—H. C. Daniels, Box 5, South Palm Beach, Fla.—See Building Material.

Trucks.—Boyd & Alvis, Winnsboro, Tex.—Prices on motor trucks.

Valves.—E. E. Brown, University of Missouri, Columbia, Mo.—See Power House Equipment.

Wagons.—Albert Bros, Shawsville, Va.—3 or 4 Reach wagons; good quality.

Batch Warmer (Electric).—Lubbock Candy Co., M. C. Wilhite, Mgr., Lubbock, Tex.—Electric batch warmer for candy.

Water Bags (Desert).—Lorick & Lowrance, Columbia, S. C.—Names and addresses mfrs. of desert water bags.

Wheels (Disc).—Val Robichaux, 4233 Iberville St., New Orleans, La.—Names and addresses mfrs. of 6 to 14-in. diam. disc wheels to be used for toys.

Wire Screening.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Sept. 22 to furnish 9,000 sq. ft. cooper wire screening for Depot Quartermaster, U. S. M. C., Port au Prince, Haiti; plans on file.

Woodworking Machinery.—A-B-C-Millwork Co., W. H. MacGlashing, Prest.-Mgr., 8 Jackson St., Fort Myers, Fla.—Woodwork-

ing mchy. including planer, matcher, moulder, combination saw bench and band saw.

Financial News

New Financial Corporations.

Ga., Athens—Fidelity Loan & Investment Co. applies for charter.

Ky., Louisville—Okolona State Bank, capital \$15,000 inceptd., by H. K. Skiles, Bardstown, Ky.; C. P. Brooks, Okolona.

Miss. Jackson—Magnolia State Life Insurance Co., capital \$400,000, organized with Sweb J. Taylor, Prest.; Jacksonville; J. H. McCoy, Secy., St. Louis, Mo.

Mo., St. Louis—Verne Lacy, Arcade Bldg., interested in organizing Labor Trust Co. with capital of \$500,000.

Tex., Dallas—Columbia Finance Co., capital \$100,000, inceptd. by Philip Harding, F. D. Wise.

Tex., Denison—Citizens State Bank, successors of Denison Bank & Trust Co., organized with \$150,000 capital by R. W. Stoddard, Prest.; Clarence Scott, Cashr.

Tex., Harlingen—Security National Bank, inceptd. with \$25,000 capital.

Va., Harrisonburg—Harrisonburg Mutual Building & Loan Assn. organized with C. G. Price, Secy.-Treas.

New Securities.

Ala., Albany — Refunding — City sold \$50,000 refunding bonds to Alabama Bonding Co., Birmingham, Ala.

Ala., Birmingham—Public Improvement—City Comsn. receives bids Sept. 16 on \$115,500 of 7 per cent semi-annual \$500 denomination public improvement bonds, dated Sept. 1, 1921; N. A. Barrett, Prest. Comsn.

Ala., Montgomery — School — Montgomery County sold \$300,000 of 6 per cent semi-annual \$1000 denomination bonds, dated July 1, 1921 to, Seasongood & Mayer.

Fla., Bradentown—Road—Manatee County, Manatee-Oneco Road Dist. voted \$350,000 of \$1000 denomination 5 to 25-yr. road bonds; W. P. Frier, Chrmn. City Comms. (Lately noted to vote.)

Fla., Eau Gallie—Street—City may vote on \$25,000 street bonds. Address The Mayor.

Fla., Jacksonville—Paving—City, Frank H. Owen, Chrmn. City Comsn., received bids Sept. 15 on \$90,000 of 5 per cent paving bonds.

Fla., Kissimmee—Road—Osceola County Comms. will receive bids until Oct. 10 on \$80,000 of 6 per cent Special Road and Bridge Dist. bonds; J. L. Overstreet, Clk. Circuit Court.

Fla., Live Oak—School—Suwannee County School Board will receive bids until Oct. 4 on \$80,000 school bonds.

Fla., Titusville—Road—Brevard County Comms. sold \$175,000 road bonds to, Union Cypress Co., Hopkins, Fla., McNair Lumber Co., Jacksonville, Fla., Evert P. Maule, Ojus, Fla., and Geo. W. Michael, Indian River City, Fla.

Fla., Vernon — Washington County Comms. A. G. McQuagge, Clk., will receive bids until Oct. 3 on \$25,000 of 7 per cent \$1000 denomination time warrants.

Ga., Atlanta—Street—City, J. R. Seawright, Chrmn. Finance Committee will re-

ceive bids until Sept. 28 at office City Comptroller on \$136,500 of 6 per cent \$1000 denomination street bonds, dated Sept. 1, 1921; B. Graham West, Comptroller.

Ga., Cumming—School—Board of Education voted \$28,000 school bonds.

Ga., Monticello—School—Monticello School Dist. sold \$80,000 of 6 per cent \$500 and \$1000 denomination school bonds offered on June 30 at 98.00.

Ga., Rockmart—Electric and City Hall—Town, C. G. Mundy, Clk., will receive bids until Oct. 3 on \$15,000 of 6 per cent semi-annual \$1000 denomination electric light and power bonds, dated Sept. 1, 1921 and \$10,000 of 6 per cent semi-annual \$1000 denomination municipal bonds, dated Sept. 1, 1921. (Lately noted.)

Ga., Winder—Courthouse—Barrow County will vote Oct. 8 on \$50,000 courthouse bonds; C. W. Parker, Ordinary.

Ky., Ashland—Sewer—City will vote in November on \$250,000 sewer bonds. Address The Mayor.

Ky., Frankfort—Sewer and Water—City will receive bids until Sept. 26 on \$75,000 of 6 per cent semi-annual 20-yr. water and sewer bonds; W. S. Rosson, Mayor.

La., Clinton—School—East Feliciana Parish will receive bids until Oct. 5 on \$30,000 of 5 per cent \$1000 denomination School Dist. No. 6 bonds; E. R. Waller, Parish Supt.

Ky., Louisville—School—City will vote in November on \$1,000,000 school bonds. Address Mayor Smith.

La., Baton Rouge—Road—East Baton Rouge Parish. Jos. Gebelin, Prest., will receive bids until Oct. 13 on \$175,000 of 5 per cent semi-annual 7 5-6 yr. road bonds.

La., Clinton—School—East Feliciana Parish will receive bids until Oct. 5 on \$30,000 of 5 per cent \$1000 denomination 10-yr. school bonds, dated Jan. 7, 1920. Address Parish Supt. Schools.

La., Shreveport—Improvement—City sold \$1,040,000 improvements bonds to Caldwell & Co., Nashville, Tenn., at par 6 per cent and accrued interest.

Miss., Centerville—Town will receive bids until Oct. 4 on \$16,000 of 6 per cent bonds; W. L. Hagood, Clk.

Miss., Greenwood—Improvement—City voted Sept. 15 on \$55,000 improvement bonds. Address The Mayor.

Miss., Oxford—Road—Lafayette County will vote Oct. 3 on \$15,000 bonds of Dallas Road Dist. of Beat 5; D. T. Mitchell, Election Commr.

Miss., Richton—Water—Town voted \$12,500 water bonds. Address The Mayor.

Mo., Benton—Drainage—Scott County sold \$175,000 drainage bonds of Dist. 12 and 14 to National Bank of Commerce, St. Louis, Mo., and Sturdivant Bank, Cape Girardeau, Mo.; 6 per cent semi-annual \$1000 denomination, dated Sept. 1, 1921.

Mo., Kansas City—School—Kansas City School Dist. sold \$500,000 of 5 per cent tax free coupons to Wm. R. Compton & Co., and Blodgett & Co.; both New York.

Mo., Memphis—Water—City voted water bonds. Address The Mayor.

Mo., Versailles—School—Geo. E. Hackman, State Auditor registered \$31,000 of 6 per cent school bonds with State Comptroller.

N. C., Asheville—Fire Station—City may issue \$20,000 fire station bonds; Gallatin Roberts, Mayor.

N. C., Bryson City—Bridge—Swain County, D. E. Nichols, Register of Deeds, will re-

ceive bids until Sept. 21 on \$70,000 bridge bonds, dated Sept. 1, 1921.

N. C., Charlotte—Bridge—Mecklenburg County will receive bids until Oct. 10 on \$75,000 of 6 per cent semi-annual \$1000 denomination bridge bonds; F. M. Gresham, Clk. Commrs.

N. C., Durham—School—C. B. Alston, City Treas., receives bids Sept. 20 on \$525,000 of 6 per cent \$1000 denomination school bonds, dated July 1, 1921.

N. C., Graham—Sewer, Street and Side-walk—Town Commrs., R. G. Foster, Clk., will receive bids until Oct. 11 on \$17,000 of 6 per cent semi-annual \$1000 denomination sewer bonds and \$25,000 of 6 per cent semi-annual \$1000 denomination street and side-walk bonds.

N. C., Marion—Street—Town, H. H. Tate, Mayor, will receive bids until Oct. 10 on \$50,000 of 6 per cent semi-annual \$500 denomination 30-yr. street bonds.

N. C., Oxford—School—Granville County Commrs. will receive bids until Oct. 10 on \$150,000 of 6 per cent semi-annual 25-yr. school bonds; J. E. Davis, Chmn.

S. C., Greenville—School—Poplar Springs School Dist. No. 5-B voted Sept. 17 on \$12,000 of 6 per cent \$800 denomination school bonds; B. A. Thomason, Trustee.

N. C., Kernersville—School—Forsyth County, Kernersville School Dist. voted \$25,000 school bonds; Leon Cash, Chmn. Commrs. (Lately noted to vote.)

N. C., Lexington—Street, Water and Electric—Town receives bids Sept. 22 on \$200,000 street and \$50,000 water and electric light bonds; 6 per cent \$1000 denomination, dated Oct. 1, 1921, James A. Leonard, Mayor.

N. C., Lumberton—School—J. R. Poole, Clk. Board of Education, will receive bids until Oct. 3 on \$25,000 of 6 per cent \$1000 denomination school bonds of Barnesville High School Dist.

N. C., Mocksville—School—Board of Education voted \$45,000 school bonds.

N. C., Morganton—Water and Light—Town, W. J. Hallyburton, Clk., will receive bids until Oct. 4 on \$25,000 of 6 per cent semi-annual \$1000 denomination water and light bonds, dated Oct. 1, 1921.

N. C., Newell—School—Mecklenburg County will sell \$3,500 school bonds; J. M. Mathews, Supt. Public Instruction. (Previously noted to vote.)

N. C., Pilot Mountain—Electric—City may vote on power plant bonds. Address The Mayor.

N. C., Rutherfordton—Water—City sold \$15,000 of 6 per cent semi-annual \$1000 denomination water bonds, dated July 1, 1921 to Ross Bros.; \$95,000 street bonds offered at same time were not sold. (Lately noted inviting bids.)

N. C., Warrenton—Town Commrs. will receive bids until Sept. 26 on \$75,000 of 6 per cent \$5000 bonds, dated Oct. 1, 1920; R. J. Jones, Clk.

N. C., Winston-Salem—School, Park, Playground and Hospital—City will vote Oct. 25 on \$1,000,000 school, \$100,000 park and playground and \$50,000 hospital bonds. James G. Hanes, Mayor.

Okla., Atoka—Road—Atoka—County may vote on \$350,000 road bonds. Address County Commrs.

Okla., Bartlesville—Convention Hall—City, Ralph Cox, Commr. Finance sold \$300,000 of 6 per cent \$1000 denomination semi-annual convention and community hall bonds to Brown-Krummer Co., Wichita, Kans. (Lately noted inviting bids.)

Okla., Oklahoma City—Water, Sewer, Fire

Department, etc.—City plans voting Oct. 15 on \$6,200,000 bonds as follows: \$2,000,000 sewage disposal plant, \$1,600,000 storm sewers, \$1,600,000 water system; \$750,000 river and \$250,000 fire department; Mike Donnelly, Commr. of Accounting and Finance.

Okla., Tulsa—Road—Tulsa County voted \$250,000 road bonds of Dawson Township. Address County Commrs.

Okla., Wagoner—Road—Wagoner County will vote Oct. 11, 12 and 13 on \$190,000 bonds of Shannon, Blue Mount and Creek Township. Address County Commrs.

S. C., Charleston—School—Charleston County, School Dist. No. 4 will sell \$100,000 of 6 per cent 20-yr. school bonds; H. H. McCarley, County Supt. Education.

S. C., Charleston—Bridge—Santee Bridge Dist. sold \$225,000 of 6 per cent semi-annual \$1000 denomination bridge bonds; to C. W. McNear & Co., Chicago, Ill.

S. C., Greenville—Greenville County sold \$100,000 of 6 per cent semi-annual \$1000 denomination bonds, dated July 1, 1921 to Peoples National Bank. (Supersedes recent item.)

S. C., Tryon—Street—City will vote on \$60,000 street bonds. Address The Mayor. Tenn., Carthage-Smith County sold \$200,000 of 6 per cent semi-annual county bonds to Harris Trust & Savings Bank, Chicago, Ill. (Previously noted inviting bids.)

Tenn., Covington—Drainage—Guaranty Trust Co., Kansas City, Mo., is offering \$130,000 of 6 per cent Tipton County, Tenn. Drainage bonds to yield 7 per cent, due Nov. 1, 1922-1940.

Tenn., Memphis—Sewer, Water, Park, Hospital, Street, Etc.—City sold \$1,070,000 bonds to Bank of Commerce and Trust Co. as follows: \$200,000 of 6 per cent water, dated July 1, 1921; \$100,000 of 5½, 5½, 5½ or 6 per cent park, dated June 1, 1921; \$100,000 of 6 per cent hospital, dated July 1, 1921; \$275,000 of 5½, 5½ or 6 per cent street, dated May 1, 1921; \$150,000 sewer, \$75,000 grade separation, \$100,000 river terminal, \$95,000 of 6 per cent street and \$75,000 bonds, dated Jan. 1, 1917; Rowlett Paine, Mayor. (Lately noted inviting bids.)

Tenn., Nashville—Water City will vote on \$1,800,000 water bonds; Paul W. Treanor, Commr. Waterworks. (Supersedes recent item.)

Tenn., Nashville—Old Colony Trust Co. and S. N. Bond & Co., jointly purchased \$1,000,000 of 6 per cent \$10,000 denomination revenue bonds.

Tenn., Nashville—Street and General Improvement—City, S. H. McKay will receive bids until Sept. 23 on \$58,000 street and \$46,000 general improvement bonds; 6 per cent semi-annual \$1000 denomination.

Tex., Canadian—Road—Hemphill County voted \$50,000 road bonds; J. E. Stephens, County Judge. (Lately noted to vote.)

Tex., Coleman—Road—Breg, Garrett & Co., Dallas, Tex., purchased \$70,000 of 5½ per cent semi-annual 1 to 20-yr. Road Dist. No. 1 bonds.

Tex., Dallas—Hospital—Dallas County sold \$225,000 hospital bonds voted Nov. 2, 1920 to Geo. L. Simpson & Co., at par and accrued interest.

Tex., Dallas—Road—Dallas County, Chas. E. Gross, Auditor, will receive bids until Oct. 10 on \$2,700,000 of 5½ yr. road bonds. (Supersedes recent item.)

Tex., Dallas—Street—City voted Sept. 17 on \$1,250,000 street bonds; S. R. Aldredge, Mayor. (Supersedes previous item.)

Tex., Decatur—Water and Sewer—City

voted \$175,000 water and sewer bonds. Address The Mayor.

Tex., Desdemona—School—Desdemona Independent School Dist. registered \$75,000 of 6 per cent 20-40-yr. bonds with State Comptroller.

Tex., Dickens—School—Dickens County Common School Dist. No. 8 registered \$7000 of 6 per cent 5-20-yr. school bonds with State Comptroller.

Tex., Eastland—School—Eastland Independent School Dist. registered \$50,000 school bonds with State Comptroller.

Tex., El Paso—Water, Street, Sewer, Land, School, Library, Drainage—City will vote Oct. 11 on \$1,850,000 bonds as follows: \$500,000 water, \$240,000 street, \$500,000 school, \$375,000 sewer, \$100,000 park, \$10,000 library and \$125,000 drainage bonds; R. C. Semple, Mayor Pro Tem. (Lately noted to vote Sept. 6.)

Tex., Fort Worth—School—Board of Education sold \$265,000 school bonds to Chicago firm on Aug. 1.

Tex., Franklin—Road—Robertson County will vote Sept. 30 on \$150,000 road bonds; 5 per cent \$500 denomination 40-yr.; J. Reid, County Judge. (Lately noted.)

Tex., Hammond—School—Hammond Independent School Dist. registered \$10,000 of 5 per cent 5-20-yr. bonds with State Comptroller.

Tex., Harrisburg—Street and Sewer—City registered \$15,000 street and \$85,000 sewer bonds with State Comptroller on Aug.

Tex., Haskell—Water and Street—Attorney General, Austin, Tex., approved \$20,000 water and \$30,000 street bonds; 6 per cent serial.

Tex., Memphis—Electric—State Comptroller registered \$65,000 of 6 per cent 30-yr. electric bonds.

Tex., Mineral Wells—School—City will vote Oct. 3 on school bonds. Address The Mayor.

Tex., Munday—School—Breg, Garrett & Co., Dallas, Tex., purchased \$40,000 of 6 per cent 1 to 40-yr. school bonds of Independent School Dist. at 90 and interest.

Tex., New Braunfels—Water—City will sell \$35,000 of 6 per cent \$500 denomination bonds; Charles Alves, Mayor.

Tex., Polytechnic—School—Polytechnic Independent School Dist. registered \$265,000 of 6 per cent serial bonds with State Comptroller.

Tex., Rising Star—Water and Street—State Comptroller registered \$35,000 water and \$35,000 street bonds on Sept. 2.

Tex., Robert Lee—School—Robert Lee School Dist. will issue \$18,000 school bonds. Address Board of Education.

Tex., Sherman—Sewer and Water—Attorney General, Austin, Tex., approved \$175,000 bonds including \$100,000 sewer and \$75,000 water.

Tex., Silverton—Road—Briscoe County Road Dist. No. 7 registered \$100,000 of 5½ per cent bonds with State Comptroller on Aug. 29.

Tex., Stamford—Water—City voted \$125,000 water bonds. Address The Mayor.

Tex., Timpson—Electric—City voted \$30,000 of 6 per cent 30-yr. electric bonds; F. R. Bussey, Mayor. (Lately noted to vote.)

Tex., Waxahachie—School—Ellis County Court purchased \$4,000 Common School Dist. bonds and 75 and \$1,000 Common School bonds.

Va., Crewe—School—Board of Education voted \$50,000 school bonds.

W. Va., Bridgeport—Street—City voted \$37,000 street bonds. Address The Mayor.

Va., Staunton—Road—Augusta County, J. N. McFarland, Treas., will receive bids until Sept. 21 on \$100,000 of 6 per cent semi-annual 4 1-3-29 1/3 yr. optional road bonds.

W. Va., Welch—School—Board of Education, Elkhorn Dist. McDowell County will receive bids until Oct. 5 on \$115,000 of 6 per cent semi-annual school bonds; R. Moore Dodrill, Secy.

Financial Notes.

American Bank & Trust Co., Savannah, Ga., will increase capital from \$200,000 to \$750,000.

Workingmen's Loan & Building Assn., Newport, Ky., increases capital from \$1,000,000 to \$1,200,000.

Railways.

Ark., Rosboro—Caddo River Lumber Co., of Rosboro, T. W. Rosborough, V. P. & Gen. Mgr., will build 16 mi. of railroad from Womble, Ark., through timber lands northwest towards Oden, Ark., connection being made at Womble with the Missouri Pacific Railway. Bids now being received for the first 10 mi. to be opened Sept. 15, and the rest will be ready for bids within 60 days. Country rough and rolling. Bridges, 25 wooden, 1 steel. M. R. Smith, Prest., G. E. Giles, Ch. Engr.

Okla., Salina—Contract reported let for first 10 mi. of Oklahoma & Arkansas Railway a lumber line to be 25 mi. long from Salina to Kansas, Okla. Contract for 10 mi. more soon to be awarded. Previous reports said line would be only 20 mi. but survey showed 28 mi. National Hardwood Co. of Kansas City, Mo. and Muskogee, Okla., interested. H. L. Traber, Prest. at Muskogee.

Trade Literature.

Belt Conveyors Issued.

The Weller Manufacturing Co., Chicago, go extensively, entertainingly and instructively into the subject of "Belt Conveyors," which is the title of their Catalog No. 35C, a tastefully prepared book of 60 pages with blue and gold cover. The Catalog is liberally illustrated and there is just enough descriptive matter accompanying the pictures to properly present the merits of the conveyors made by this company. There are numerous tables giving prices and other valuable information. Many of the illustrations display the conveyors at work. The publication is prepared in a superior style.

Value of Business Libraries.

"Workshops for Assembling Business Facts," is the title of a pamphlet by Dorsey W. Hyde, Jr., of the U. S. Chamber of Commerce, Washington, D. C., and president of the Special Libraries Association. The author describes and points out the value of libraries for business concerns large and small and he notes that more than 600 American corporations today have increased the productive efficiency of their research organizations by creating special libraries or information departments. The book is a most interesting and instructive study which all business men will appreciate. It has an introduction by Herbert Hoover. It is issued by the American Library Association Publishing Board, Carl H. Milan, secretary, 78 East Washington Street, Chicago.

A New Road Scarifier.

Bulletin K. C. T. of the Good Roads Machinery Corporation, Kennett Square, Pa., illustrates and describes the Killifer Scarifier, a new road scarifying machine that the company is introducing to the trade. Pictures and reading matter give an excellent idea of this machine and also of the character of work which can be done with it.

Armature Winding Machine.

The Standard armature winding machine, which is described and illustrated in a recent folder, has, it is stated, been designed to meet the urgent demand of electrical repair men and the manufacturers of motors, generators, fans, etc., for a strong machine, of simple construction and at a reasonable price. It winds all kinds of armatures up to one horsepower with any kind of wire. It is made by the Standard Armature Winding Machine Company, Incorporated, 122 Centre Street, New York.

Pocket File for Papers, Etc.

A little novelty, recently put out for the National Steel Fabric Company, of Monessen, Pa., by the Technical Publicity Company, of Pittsburgh, is a pocket file for holding and preserving papers and documents which would otherwise become soiled or torn if carried in a coat pocket. Of particular interest to designers and builders of roads is the accompanying cost data for handling and laying National road fabric reinforcement. There are also several appropriate illustrations.

Booklet on Taps and Dies.

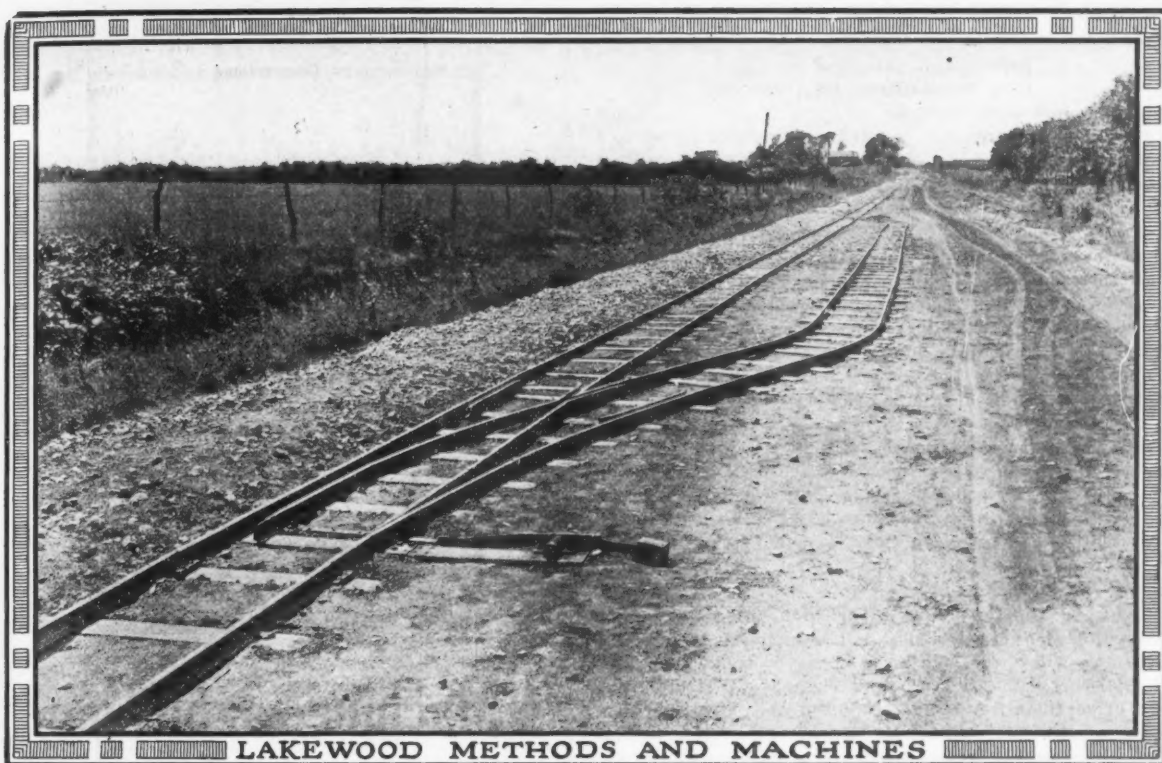
Circular No. 264 of the Pratt & Whitney Co., Hartford, Conn., is really a booklet of 20 pages illustrating and describing the Pratt & Whitney screw plate sets. These sets of taps and dies consist of regular products of the company, but they are put up in various combinations selected to meet the requirements of small shops, garages, service stations and general tool rooms. Each set it is stated, is in a nicely finished case, suitably marked and it includes a handy screw driver for readily adjusting the dies.

Lubrication of Turbines.

"Lubrication of the Steam Turbine" is a booklet issued by the Texas Company 17 Battery Place, New York. It is of pocket size with 36 pages and will be of interest and importance to steam turbine operators, builders of turbines and erecting engineers. It is not a student's treatise, but a practical consideration of lubrication for men who use oil. Successively it takes up lubricating methods, oiling systems, the effects of heat, water, deposits, cleaning, starting, oil coolers, reduction gears, etc., with recommendations as to the kinds of oil to use. Diagrams of practical oiling systems are also presented. Advertising matter is all at the back of the book.

Hardware Jobbers Directory.

The 1921 edition of the American Hardware Jobbers Directory has been issued. This valuable reference book has been thoroughly revised in all its departments, the aim of its publisher, Edward G. Baltz, 107 Sixth St., Pittsburgh, Pa., being to make it complete and accurate. It gives names and addresses of the hardware jobbers of the United States and Canada with particulars concerning their business, also covering heavy hardware jobbers, jobbers of automobile accessories, department stores selling hardware, with names of buyers, New York export houses selling hardware, these numbering 549, besides a trade name index with thousands of names listed. The price is \$2.50 postpaid.



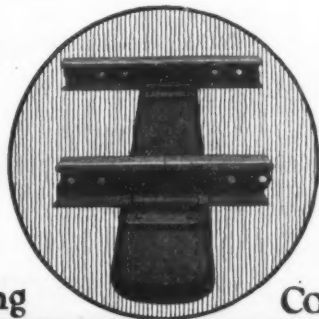
LAKEWOOD METHODS AND MACHINES

57 Contractors in 19 States Use Lakewood Track

In Pennsylvania alone over 20 miles of Lakewood road track was used on 14 of the largest road contracts in that state last year.

On Twohy Bros. contract in Arizona over 20 miles of Lakewood road track is giving satisfactory service.

The illustration shows the Chicago Heights Coal Co. job on a section of the Dixie Highway in Illinois.



The Lakewood Engineering

Company, Cleveland U.S.A.

Railroad Managers Should See Importance of Lower Rates.

Birmingham Clay Products Co.

Birmingham, Ala., September 2, 1921.

Editor Manufacturers Record:

Being absent on my first vacation in a number of years, I missed seeing your cover page editorial on August 4th regarding Railroad Rates, until called to my attention on my return home.

This is a most timely and forceful editorial. The Railroads should carefully ponder your suggestions, for they must know that they are the calm and inevitable conclusions of one who has been their staunch friend and well wisher. Idle locomotives and rolling stock can no more produce revenue than idle machinery in our mills, furnaces and factories.

The success of the railroads and industry is so interwoven that a sickly condition in either is bound to impair the welfare of the other.

It is pretty generally conceded that the condition of building operations is a good barometer of the state of industrial life. Although the housing shortage grows more acute every day, we find very little headway is being made in an effort to remedy it, and practically all the great building material industries are in a stage of semi-paralysis, and many plants wholly shut-down.

Under the drastic process of deflation, prices have been lowered, in many cases, almost to pre-war levels, but freight rates are still at the high mark of the boom days of 1920. On the short hauls on brick the freight is two hundred per cent higher than it was June 25, 1918, when General Order 28 was issued. With an immense demand for brick then, and the freight being less than ten per cent of the value of the product, the consumer absorbed it without complaint. But now with a supply twice as great as the demand and the freight being twenty per cent of the value of the product, the law of relativity "butts in" and the shipper must absorb it and in many instances thereby eliminate his legitimate profit, or lose the order.

I am glad to say the Southern Producers and Carriers have agreed to confer with each other and endeavor to adjust the brick rates on a fair and equitable basis, realizing if one is to make a fair profit in business the other must also. I trust that this same spirit of co-operation will enter into the questions at issue between the railroads and all branches of industry.

Our experience shows that efforts for relief at Washington only mean endless delays and expense to both the shipper and the railroads. When both sides are willing to approach the settlement of a question on the basis of "live and let live" a fair and happy solution is inevitable.

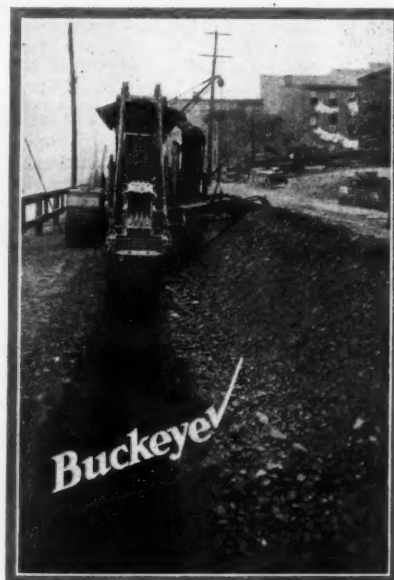
The time has come in my judgment in the Commercial world to adopt the immortal slogan of General Grant—"let us have peace."

The MANUFACTURERS RECORD has always labored for the best interests of our Common Country and its words of advice in the editorial mentioned should not fall upon deaf ears. I trust the railroads of the whole Country will take the lead, as suggested, in an effort to revive activity in all industries and thereby preserve their own autonomy by the increased value of their securities.

JOHN W. SIBLEY
General Sales Manager.

Austin Building Record for August Totals \$509,000.

Austin, Texas, September 16—[Special.]—Building permits issued here during last month had a total valuation of more than \$509,000. The largest single permit was for the Scottish Rite dormitory for university girls soon to be erected at Twenty-seventh Street and Whitis Avenue. In all 51 permits were issued.



A Machine—or 50 Men?

It's a common expression among users, "a Buckeye is equal to 50 men." Take all costs into consideration and a Buckeye soon pays for itself.

Users appreciate Buckeye 4-A—for trench work 18" to 24" wide up to 6½ feet deep—because of the clean smooth bottom it produces—no need of putting men in to "bottom out." It leaves a smooth round bottom so that the tile lay in place without rocking.

There are many other cost-saving features about the Buckeye which will interest you. May we send them?

The Buckeye Traction Ditcher Co.

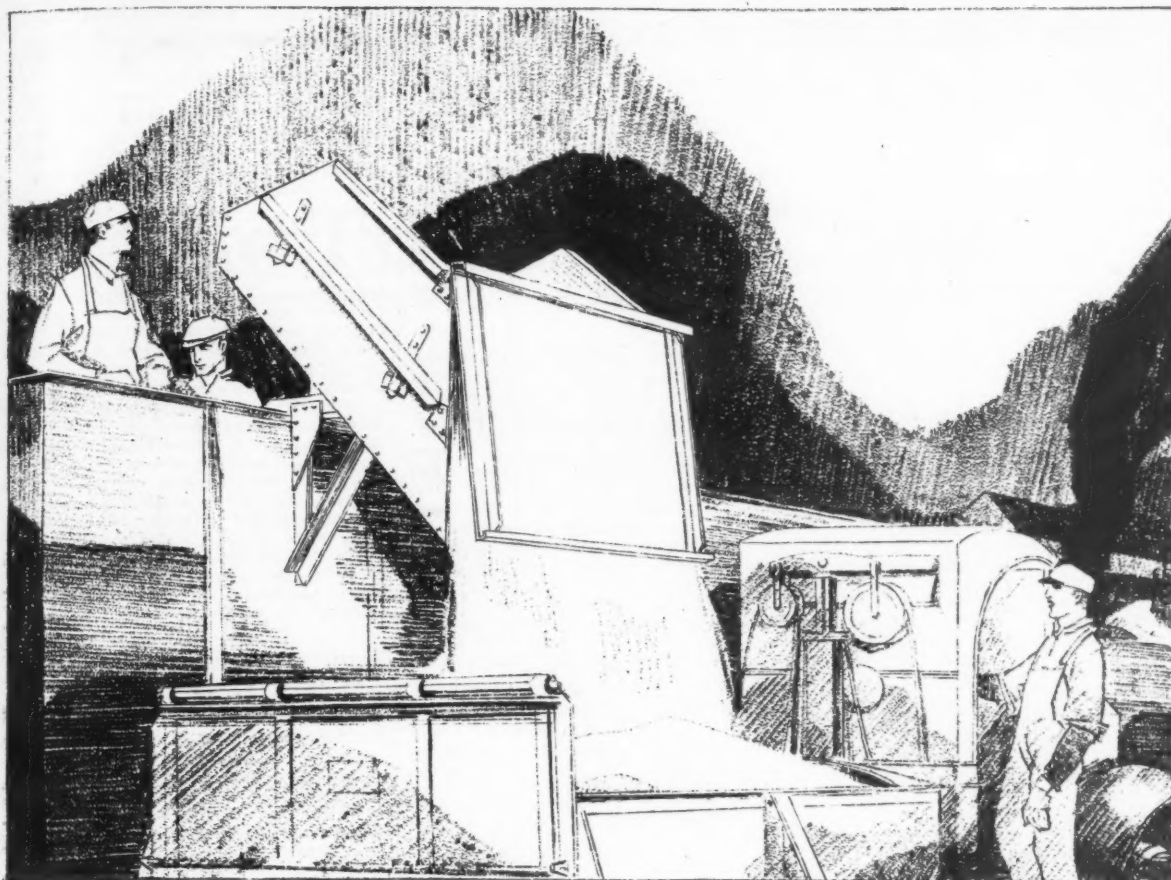
Manufacturers of Trench Excavators (both Wheel and Chain-and-Bucket Types), Concrete Breakers, Pipe Line Trench Excavators, Tile and Open Ditchers, Back-Fillers, Pipe Screwing Machines, Curb Diggers and Clay Diggers.

Findlay, - - Ohio

Buckeye

Service and Repair Stations

Tulsa, Oklahoma Mason City, Iowa Chatham, Ontario



DRAWN FROM ACTUAL PHOTOGRAPH

"The Heltzel "Lightning" Loader Skip saved us 36 truck hours per day" writes one contractor.

"We show a gain of 27 minutes a load as compared with previous method, by using your Loader Skip"-writes a Street Commissioner.

If you are unloading sand, gravel, crushed stone, coal and the like, write for literature.

You can't go wrong on this Loader—and the price is less than a hundred dollars.

Manufactured by

THE HELTZEL STEEL FORM & IRON CO.

WARREN, OHIO

Fabricators of Steel Forms for Sidewalks, Curb Roads, Streets, etc.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Rights Granted to Manufacture Dryers.

The L. R. Christie Co. of Pittsburgh, Pa., well-known engineers, specializing in the design of drying machinery, have granted the Duff Patents Co., Inc., of Pittsburgh, sole license and rights to manufacture dryers of the Christie patents and design. The Duff Patents Co. is a firm of long standing and recognized as high grade fabricators of steel plate construction and it is believed that the consolidation will result in entire satisfaction to those interested.

Business Change.

B. R. Evans has resigned as advertising manager of the Standard Scale & Supply Co., of Pittsburgh, and is now general manager of the American Router and Manufacturing Co., of the same city, his headquarters being at Room 212 Apollo Building, 238 Fourth avenue. The Hunter stair router has been on the market about two years, during which its merits have been thoroughly demonstrated. The company is also considering the addition of one or two other lines of goods of interest to the same class of trade.

Tie Splicing Machine.

The Renaud tie-splicing machine is a new device of interest to superintendents and owners of cotton compressors. It is described as being "fool proof" and of such design and construction that the average negro band-maker can operate it easily and satisfactorily, without the aid of a compress engineer or any other mechanic to make adjustments; there is nothing to get out of order, and there are no complicated dies to adjust and set up. Splices made on this machine are double riveted and may be used on high density cotton, it it said, without breaking. From 1,500 to 2,000 ties of 1 1/2 feet can be made daily by an average laborer. The machine is manufactured by the Renaud Company, Cincinnati, Ohio.

Increasing Demand for Oil for Fuel.

V. E. Jackson, sales manager of the Texoma Oil and Refining Company, Wichita Falls, Texas, writes: "The demand for fuel oil has increased materially in the last thirty days. Owing to the larger industries and the railroads coming into the market it seems that the present market prices and prospects for a reasonable price for fuel over the next twelve months have had a great deal to do toward causing the railroads and larger manufacturing plants to convert to fuel oil burning. We anticipate that there will be more industries burning fuel oil during the next twelve months than there ever has been before."

Metal Spraying by Schoop Process.

A method of coating with metal by a spraying process has been evolved and perfected by the Metals Coating Company of America, who are now located in their new plant at 495-497 N. 3rd Street, Philadelphia. A recent booklet describes the principle of the spraying pistol as a machine gun making its ammunition from reeled wire, and coating objects by bombarding with minute plastic particles of metal. The hot metal is discharged at high velocity, and penetrates the pores of the object upon which directed and a mechanical union is effected. The method is known as the Schoop process and has a wide application for protective coatings, bonding or junction

coatings, electrical coatings, decorative coatings and detachable coatings.

Appointment.

The Clay Products Association, 913 Chamber of Commerce, Chicago, announces the appointment of Mr. George C. D. Lenth as secretary to succeed Mr. Geo. H. Tefft, deceased.

Pulley Socket Reflector for Electric Lights.

Lighting fixtures must be often cleaned and the Cutter pulley socket reflector which, it is stated, is a reliable cutout and lowering device, has been produced by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., and by its use cleaning and relamping may be done with absolute safety. A great advantage in the use of this is that ladders are not required to reach the fixtures. A pull on the rope disconnects the principal parts and the whole fixture comes down "dead." It is not even necessary to switch off the current for in the pulley socket are sliding contacts. Another pull resets the fixture. An angle reflector may be used and it will always return to true position.

Have Manufactured Storage Tanks for Many Years.

A recent item in the MANUFACTURERS RECORD stated that the J. S. Schofield's Sons Co., of Macon, Ga., in addition to manufacturing engines, boilers, mill and machinists' supplies, etc., were also engaged in the production of gasoline storage tanks, and the impression was inadvertently conveyed that the manufacture of such tanks was an innovation with the company. They write: "This is erroneous, as we have been building storage tanks for various purposes for many years. While we advertise particularly several sized tanks, we can build anything from a small tank up to two or three thousand or even a million gallons capacity, as we have furnished. We are and have been building for many years such tanks, but make a specialty of the particular sizes named, 10, 12, 15, 18 and 20,000 gallons. We are prepared, however, to build any size wanted."

Signs of the Times in Iron Trade.

Improvement in the iron and steel industry is one of the conspicuous facts that has occurred in the incoming tide of general business prosperity throughout the country. Furnaces are starting up here and there, others are being made ready to blow in, and there are reports of increased orders for manufactured products of iron and steel in all the centers of the industry, north and south. As stocks have been depleted in recent months, it is inevitable that any considerable resumption of demand will call for increasing activity in all phases of production.

An interesting evidence of the trend of the times is furnished by the advertisement of the Alabama Company of Birmingham, which appears in this issue of the MANUFACTURERS RECORD. In a simple announcement which, however, speaks volumes, as to present conditions, the Alabama Company makes a statement to the following effect:

"Our stock of Clifton and Etowah irons is being rapidly depleted and in order to take care of our trade, we have arranged to resume operations about the middle of October."

Good Orders for Cranes and Derricks.

The Terry Manufacturing Co., Grand Central Terminal, New York City, report that they have been successful in closing a few good derrick and crane orders in the past few weeks, among which is an order for a Terry Tractorcrane, for delivery in Hoboken. They say there is a noticeable improvement in the derrick and crane business in the vicinity of New York.

Unique Southern Brick in Northern Markets.

A large order for their Dixie Texture brick was received recently by the Sumter Brick Works of Sumter, S. C., from Wellesley College in Massachusetts for a new alumnae building being erected. This special brick has a very deep color, is antique in tone, and is much in demand for buildings for educational institutions. The Yale quadrangle is built largely of these brick. Other recent orders have come from New York, from Milwaukee, for a half-million-dollar residence in the suburbs of Boston, and from Cincinnati. These orders offer additional evidence that a unique Southern product is being accorded increasing recognition in other parts of the country and this, too, in the face of strong competition and adverse freight rates. The Sumter Brick Works has branch offices at Atlanta, Jacksonville and Norfolk.

Receives Contract for Coal Station Machinery.

The Link-Belt Company, of Philadelphia, announce that they have recently received contracts for supplying the machinery for the Locomotive Coaling Stations for New York Central Railroad Company, to be located at Solvay and Wayneport, N. Y. The plant at Solvay will consist of a 1,000-ton reinforced concrete structure, equipped with 12 undercut gates and coaling chutes, and 12 sand gates and spouts, with necessary piping, two 24"x36" gravity-discharge elevator-conveyors, 177' horizontal and 60' vertical centers, having capacities of 80 tons per hour of run-of-mine coal; two 30' apron conveyors, and two 17"x24' tract hoppers, with grating having 15" square openings. The station at Wayneport consists of a 400-ton steel pocket; six coaling gates and chutes; one 24"x36" gravity-discharge elevator-conveyor, 78' horizontal and 64' vertical centers; one 30' apron conveyor; station is laid out so that it can be extended for practically double the capacity. At the Solvay station one unit is to be in operation in seventy days, with the second unit and the entire station completed in 90 days after date of contract. At Wayneport the station has to be in operation 70 days after date of contract.

Small Concrete Mixer.

The Ransome "4-S" Improved Bantam Mixer, the latest development of the Ransome Concrete Machinery Co., Dunellen, N. J., in the way of small concrete mixers is fully presented in their new Bulletin No 108. This machine is designed to meet the requirements of a large number of contractors and others who can profitably use a mixer of relatively small capacity and to them it offers a simple, low-cost, light and easily portable machine, capable of handling a one-bag batch of any standard mix, and rapidly converting it into a high grade concrete. This new addition to the Ransome line possesses several special features of importance to purchasers, foremost being the adoption of gear drive and an arrangement by which a three-point suspension of the drum popper is secured. Maag gears are used. Either gasoline engine or electric motor is provided for power.

The Turn Has Come

The South Leads the Country on the Road to Prosperity.

The steady rise in the price of cotton during the past sixty days will add over \$500,000,000 to the purchasing power of the South and will probably go far beyond that figure.

This means that a vast amount of money will be turned loose in the Southern States.

Added to this splendid increase in cotton values is the great progress made in diversified farming, the enlarged production of foodstuffs, the greatest peach and watermelon crop ever raised and shipped to the North at profitable prices. Georgia alone shipped nearly 11,000 car loads of peaches.

Building activities are increasing, while public construction work is being pushed with great vigor, especially road building, for which vast sums are available and which in the South can be carried on uninterruptedly through winter months.

All of these evidences emphasize the fact that the South is the first section of the country to show a real business revival. Out of all this activity is coming a large and steadily expanding demand for equipment, machinery, materials and supplies of every kind, making the South unusually attractive as a sales field to business men.

Delayed or suspended advertising plans for Southern business can be put into effect now with good assurance that such advertising will materially help you in securing a share of the business developing from these upward movements.

The Manufacturers Record, as the South's leading business, industrial and construction weekly paper is well equipped to place your business effectively before the active forces of this section.

Manufacturers Record

Exponent of America

MEMBER

Associated Business Papers, Inc.
Audit Bureau of Circulations

A knowledge of market fluctuations is invaluable

You are in a much better position to judge market possibilities if you know the price history of the stock in which you are interested.

"Price Range" contains the "high" and "low" prices on about 800 securities, as well as dividend rates, capitalization, par and other important information.



September issue just out. Copy on request.

Ask for R. D. 26

CALL, PHONE or WRITE.

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Telephone: St. Paul 8451

Direct Private Wires

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EASE SPEED ECONOMY

through our service

of Information and Representation for

purchasers from surplus stocks of
THE UNITED STATES GOVERNMENT
THE BRITISH GOVERNMENT
THE FRENCH GOVERNMENT
PRIVATE INDUSTRIES

All Commodities

Automobiles and Accessories	Machinery
Building Materials	Machine Tools
Chemicals	Metals of All Kinds
Chemical Equipment	Mill Supplies
Clothing and Dress Goods	Motor Trucks
Contractors' Equipment	Office Equipment
Electric Equipment	Power Equipment
Foodstuffs of All Kinds	Raw Materials
Furniture of All Kinds	Railroad Equipment
Hardware of All Kinds	Real Estate and Plants
Harness and Saddlery	Ships and Boats
Household Supplies	Ship Chandlery
Lumber	Shop Equipment
Locomotives	Textiles of All Kinds
	Etc. Etc.

Bulletins of Commodities Sent Upon Request

GENERAL PURCHASING AGENTS Inc.

280 Madison Avenue, at Fortieth Street

New York City

Telephone

Vanderbilt 10337

No Orders for

Less Than \$1,000 Accepted

THE FIRST NATIONAL BANK

OF BIRMINGHAM, ALA.

Statement September 6th, 1921

Resources

Loans and discounts	\$18,814,360.66
Overdrafts	2,535.38
U. S. bonds (par)	1,500,000.00
U. S. Treasury certificates	724,500.00
Liberty Loan bonds	735,834.64
State of Alabama bonds	100,000.00
Stock in Federal Reserve bank	90,000.00
Other stocks and bonds	1,107,992.66
Banking house	250,000.00
Other real estate	6,850.60
Interest earned not collected	45,040.43

CASH:

In vault	\$ 786,788.63
With banks	3,830,110.15
With U. S. Treasury	70,000.00
With Federal Reserve bank	2,377,455.92
	7,064,354.70
	\$30,441,469.07

Liabilities

Capital stock	\$ 1,500,000.00
Surplus and profits	2,258,429.97
Reserved for taxes	145,457.79
Reserved for interest	33,779.69
Circulation	1,381,200.00
Interest collected not earned	140,244.83

DEPOSITS:

Individual	\$22,196,115.00
Bank	2,206,456.56
U. S.	149,785.23
Federal Reserve Bank Atlanta	
Fiscal Agent	430,000.00
	24,982,356.79
	\$30,441,469.07

NEVILLE, McIVER, BARNES & CO.

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(Georgia)

Members American Institute of Accountants.

AUDITS—EXAMINATIONS—INCOME TAX RETURNS—
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Established 1908

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OUR experience of more than a half century of service to buyers of printing should be of some value to you in solving your printing problems. It will pay you to consult us when in need of such service.

CUSSENS, MAY CO., Inc.

Established 1868

RICHMOND, VA.

We specialize in calendars.

We Finance

Electric Power and Light Enterprises with Records
of Established Earnings

We Offer

Bankers and Investment Dealers
Proven Power and Light Securities

Correspondence Solicited

ELECTRIC BOND & SHARE CO.

(Paid-up Capital and Surplus, \$24,500,000)

71 Broadway

New York



Capital and Surplus
\$4,000,000

Total Resources
\$46,000,000

Large enough to handle your biggest
problems, but not too large to be
interested in your smaller ones.

**MERCHANTS NATIONAL BANK
OF BALTIMORE****MARINE BANK & TRUST COMPANY**

New Orleans, Louisiana

Capital and Surplus - \$2,300,000.00

General Banking - Domestic and Foreign
Correspondence Invited

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

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and INVESTMENT OPENINGS, write

JEMISON

REAL ESTATE & INSURANCE COMPANY
BIRMINGHAM, ALA.

We Finance

**MUNICIPALITIES AND HIGH GRADE
INDUSTRIAL COMPANIES**

Correspondence Invited

Lawrence Chamberlain & Company

115 Broadway (Incorporated) New York

WE BUY MUNICIPAL BONDS

We are interested in the purchase of
Southern Municipals including road,
school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns,
counties, school, road or drainage districts that you
may be able to take in exchange for work. Address
us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla.
Chicago, Ill. Glasgow, Mont.

**DELAWARE CORPORATIONS
DIGEST OF LAW**

(7th ED.) FREE ON REQUEST

STOCK WITHOUT PAR VALUE, if desired.

The most modern and scientific method of corporate organization
CORPORATION; ORGANIZED AND REPRESENTED.

22 Years Experience

Corporation Service Company
Equitable Building, Wilmington, Del.

**OCEAN FREIGHT FORWARDERS
SHIP BROKERS**

Ward Line Service
every ten days Orange, Texas,
to Tampico and Vera Cruz.
Bookings to Other Foreign Countries.
Prompt and Accurate Service.

ORANGE FORWARDING CO. - Orange, Texas

**Building Operations
financed at 3% interest**

ASK FOR OUR NEW BOOKLET
CONTAINING DETAILED INFORMATION
AS TO OUR PLAN.

North American Savings and Loan Co.
1313-15 MAIN ST., DALLAS, TEXAS

Manufacturing Census of Arkansas.

In the census of manufacturing in Arkansas, the Census Bureau reports that the number of establishments increased 19.9 per cent, number of persons engaged in manufacturing 22.1 per cent, primary horse-power 54.9 per cent, capital invested increased 77.9 per cent and the value of manufactured products of these plants increased 138.6 per cent in 1919 over 1914.

A preliminary summary of the census of manufactures in Arkansas is given in the following:

	1919 Census	1914	Percent of Increase 1914-1919.
Number of establishments	3,123	2,604	19.9
Persons engaged in manufactures ..	59,132	48,440	22.1
Proprietors and firm members ..	4,590	2,917	57.4
Salaried employees	4,588	3,544	29.5
Wage earners (average number) ..	49,954	41,979	19.0
Primary horsepower	274,469	177,208	54.9
Capital	138,818,000	77,162,000	79.9
Services	56,515,000	24,915,000	126.8
Salaries	9,329,000	4,163,000	124.1
Wages	47,186,000	20,752,000	127.4
Materials	102,813,000	44,907,000	128.9
Value of products	200,313,000	83,941,000	138.6
Value added by manufacture (value of products less cost of materials)	97,500,000	39,034,000	149.8

Manufactures in Virginia.

A preliminary statement of the census of manufactures of Virginia for 1919 with comparisons with the 1914 census returns has been issued by the Census Bureau. It shows that with an increase of 1.7 per cent in the number of establishments, a decrease of 3.7 per cent in the number of proprietors and firm members, but an increase of 17.8 per cent in the number of persons engaged in manufacturing operations, there has been an increase in capital invested in these plants of 77.6 per cent while the value of the products increased 143.1 per cent over the 1914 census figures.

The amount of capital invested in 1919 was \$464,517,000

compared with \$261,501,000 in 1914, and the value of the products increased from \$264,039,000 in 1914 to \$641,810,000 in 1919.

The comparative summary for the State follows:

	1919 Census	1914	Percent of Increase 1914-1919.
Number of establishments	5,603	5,508	1.7
Persons engaged in manufactures ..	139,197	118,109	17.8
Proprietors and firm members ..	5,900	6,125	-3.7
Salaried employees	13,929	9,164	52.0
Wage earners (average number) ..	119,368	102,820	16.1
Primary horsepower	419,019	337,567	24.1
Capital	\$464,517,000	\$261,501,000	77.6
Services	148,030,000	56,118,000	160.2
Salaries	25,925,000	11,245,000	130.5
Wages	120,105,000	44,873,000	167.6
Materials	372,041,000	155,320,000	139.5
Value of products	\$641,810,000	\$264,039,000	143.1
Value added by manufacture (value of products less cost of materials)	269,769,000	108,719,000	148.1

(1) A minus sign (—) denotes decrease.

A Wide Awake Town.

A correspondent in writing regarding the progress made by Central City, Ky., states that since January 1 about 150 houses have been built, and that there are not enough to care for the people coming in, some having to live in tents. There are now in course of erection two large business buildings.

An illustration of the progressive spirit of the citizens of Central City, which is in the heart of the Western Kentucky coal fields, is shown by the number of slogans on the letter-head of the local Chamber of Commerce which states: "Central City offers, cheap coal, natural gas, free taxes for five years, 10 churches, high school, large dairy, two banks, two theatres, river and rail shipment, inexhaustible water supply, three railroads, newspaper and printing offices, flour mill, laundry, foundry and machine shop, overall and shirt factory, business college, wide awake business men."



PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close October 4, 1921.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C. September 6, 1921. Sealed proposals will be opened in this office at 3 p.m., October 4, 1921, for a refrigerating plant in the United States Marine Hospital at Key West, Florida, in accordance with the specification, copies of which may be had at this office or at the office of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

PROPOSALS FOR FURNISHING AND INSTALLING PLUMBING SYSTEM. Office, District Engineer, Mississippi River Dredging District, Post Office Box 1017, Memphis, Tenn. Sealed proposals for furnishing and installing plumbing system in warehouse building at U. S. Dredge Depot will be received here until 3:30 P. M. October 10, 1921, and then opened. Further information on application.

Bids close October 3, 1921.

\$17,000 7% Time Warrants.

Vernon, Fla. The Board of Public Instruction of Washington County, Florida, will offer for sale, at public outcry, in front of the Court House door at Vernon, Florida, at noon, October 3rd, A. D. 1921, Seventeen Thousand (\$17,000.00) Dollars of Interest Bearing School Time Warrants, issued by said Board in denominations of (first five) \$1,000.00, (Six) \$2,000.00 each, bearing interest at the rate of Seven Per cent (7%) per annum from date until paid, interest payable semi-annually on Oct. 1st and April 1st, and maturing serially as follows:

\$1,000.00	on	October 1st	1922,
\$1,000.00	on	October 1st	1923,
\$1,000.00	on	October 1st	1924,
\$1,000.00	on	October 1st	1925,
\$2,000.00	on	October 1st	1926,
\$2,000.00	on	October 1st	1927,
\$2,000.00	on	October 1st	1928,
\$2,000.00	on	October 1st	1929,
\$2,000.00	on	October 1st	1930,
\$2,000.00	on	October 1st	1931.

principal and interest payable at the First National Bank, Chipley, Florida. Sealed bids will be received up to the hour of twelve o'clock, noon on date of sale and verbal bids at such hour of sale. All bids must be accompanied by a certified check on some reputable banking institution for \$500.00 payable to the Secretary of said Board, conditional upon the faithful performance of such bid. The Board reserves the right to reject any and all bids at its discretion. Bids may be addressed to the Secretary of said Board.

W. T. LANEY.

Chairman.

Attest:
JAMES T. HIGHTOWER,
Secretary & Co. Supt.

\$100,000 6% Road Bonds.

MOORE COUNTY, N. C.

Carthage, N. C. Notice is hereby given that sealed proposals will be received by the Board of Commissioners of Moore County, North Carolina, or any member of it, at the office of said board, in Carthage, N. C., up to and including 2 o'clock P. M., the 3rd. day of October, 1921, for the purchase of coupon road bonds of the County of Moore in the aggregate amount of One Hundred Thousand Dollars.

Said bonds are direct obligation of the County of Moore with unlimited tax levy under a special act of the General Assembly of North Carolina at its 1921 session. Said bonds will be dated November 1, 1921, and issued in denomination of \$1,000, bearing interest at the rate of 6% per annum, payable semi-annually on the first days of November and May, semi-annual interest and principal payable at The Hanover National Bank, New York City, the said bonds to mature in annual installments, or series, as follows: First installment of five thousand dollars to mature on November 1, 1931, and annual installments of \$5,000 to mature on the first day of November in each and every year thereafter for nineteen consecutive years. Said bonds are to be issued for the purpose of grading, building, constructing and repairing the public roads of Moore County. All bidders must deposit with the Board of Commissioners of Moore County before making their bids, or present with their bids, a certified check drawn to the order of Moore County upon an incorporated bank or trust company, or a sum of money, for or in amount equal to two per centum (2%) of the face of amount of bonds bid for, to secure the county against loss resulting from failure of bidder to comply with terms of bid.

Said bonds will not be sold for less than par and accrued interest. Said bonds will be awarded to the highest bidder unless all bids are rejected.

This the 5th. day of September, 1921.

H. P. McPherson,
Chairman of Board of Commissioners,
Moore County, N. C.
E. C. MATHESON,
Clerk.

Bids close October 3rd, 1921.

\$25,000.00 6% Municipal Bonds.

Rockmart, Georgia.

\$15,000.00 issue of Municipal Bonds of the Town of Rockmart, Georgia, Polk County, known as "Rockmart Electric Light & Power Bonds", bearing date September 1, 1921, and payable \$1,000.00 annually from 1926, and in denominations of \$1,000.00 each.

\$10,000.00 issue of Municipal Bonds of the Town of Rockmart, Georgia, Polk County, known as the "Rockmart City Hall Bonds", bearing date of September 1, 1921 and payable \$1,000.00 annually from 1931, and in denominations of \$1,000.00 each.

Said Bonds bearing interest at the rate of six per cent per annum, payable semi-annually on the 1st day of January and the 1st day of July of each year.

Scaled bids will be received by C. G. Mundy, City Clerk of Rockmart, Georgia, up to eight o'clock P. M. on Monday the 3rd day of October, 1921. Bids will be received for one or both issues of said Bonds and must be accompanied by certified check for five (5) percent of the bid, payable to the Treasurer of the Town of Rockmart.

Town Council reserves the right to reject any or all bids. For any information address C. G. Mundy, City Clerk, Rockmart, Ga.

C. G. MUNDY,
City Clerk, Rockmart, Ga.

Bids close October 3, 1921.

\$690,000 5% Road Bonds

Harrisonburg, La.

Scaled bids will be received by the Police Jury for Catahoula Parish, State of Louisiana, up to 2 P. M. o'clock Monday, October 3, 1921, for the purchase of the entire issue of road bonds of Road Districts Nos. 1, 2 and 3 of the Parish of Catahoula, dated February 1, 1920, maturing serially on the first of February, 1921 to 1940, both inclusive, and bearing interest at the rate of 5 per cent. per annum, payable semi-annually on the first days of February and August.

Said bonds for each road district being as follows, to wit:

For Road District No. 1.—Four hundred one-thousand-dollar bonds, aggregating \$400,000.

For Road District No. 2.—Two hundred and twenty one-thousand-dollar bonds, aggregating \$220,000.

For Road District No. 3.—One hundred and forty five-hundred-dollar bonds, aggregating \$70,000.

Each bid must be accompanied by a check, payable to J. B. Fain, President, for two and one-half per cent. of the amount of bonds bid for, drawn on some national bank doing business in the State of Louisiana, or some solvent chartered State bank doing business under the laws of the State of Louisiana.

The checks of unsuccessful bidders will be returned to them promptly, and the check of the bidder whose bid is accepted will be returned to him upon his taking and paying for the bonds in accordance with the terms of his bid, or will be forfeited as full liquidated damages in the event of his failing to accept delivery and pay for the bonds in the terms in accordance with his bid.

Official advertisement now running in official journal of parish.

For further information address J. B. Fain, Jonesville, La., or J. K. McGee, Harrisonburg, Louisiana.

J. B. FAIR,
President Police Jury of Catahoula Parish.

Attest:
J. K. MCGEE,
Secretary.

Bids close October 12, 1921.

School Building.

Richmond, Ky.

Bids will be received until 2 P. M. October 12th, 1921, by J. Howard Payne, Clerk of the Board of Education, Richmond, Ky., on a twenty room School Building. A certified check or preliminary bond of 5% must accompany the bid. Plans can be procured from C. C. & E. A. Weber, Architects, S. W. Cor. Third and Walnut Sts., Cincinnati, Ohio.

Bids close October 3, 1921.

\$31,000 6% Time Warrants.

Vernon, Fla.

On Monday October 3rd, 1921, at 1 o'clock P. M. at Vernon, Florida, the Board of County Commissioners, of Washington County, Florida, will sell, Thirty-One Thousand Dollars Time Warrants, bearing interest at the rate of Six per cent, interest payable annually; Warrants issued serially in denominations of One Thousand Dollars each, and payable at the National City Bank, New York, in from Two to Eleven years.

Scaled bids will be received at the office of the Clerk of the Circuit Court, up to 12 o'clock noon, October 3rd, and bidders will be required to accompany their bid with Cashier's check in the sum of One Thousand Dollars, as a guarantee of good faith.

For further particulars write to A. G. McQuagge, Clerk of the Circuit Court, Vernon, Florida.

THE BOARD OF COUNTY COMMISSIONERS, WASHINGTON COUNTY, FLORIDA.

BY A. D. CAMPBELL,
Chairman said Board.
Attest:
A. G. McQuagge,
Clerk.

Bids close September 19, 1921.

\$60,000 6% Municipal Bonds.

Stuart, Fla.

Sixty thousand dollar issue of municipal bonds of the town of Stuart, Florida, Palm Beach county, bearing date July 1st, 1919, and payable annually from 1925 to 1944.

Said bonds bearing interest at the rate of 6 per cent. per annum, payable semi-annually, and the principal and interest on said bonds shall be paid at the Seaboard National Bank, New York City, and at the office of the city clerk of the town of Stuart, Palm Beach county, Florida.

Scaled bids will be received by J. F. Gregg, town clerk of Stuart, Florida, up to 8:30 P. M. at the Town Hall of Stuart, Florida, on Monday, the 19th day of September, 1921.

Town Council reserves the right to reject any or all bids.

Certified check of \$1,000 shall accompany each and every bid.

Said bonds have the preliminary approval of John C. Thompson, bond attorney.

J. F. GREGG, City Clerk.

Bids close October 17, 1921.

Road Improvements

Southport, N. C.

Scaled proposals, on blank forms furnished by the County, addressed to the Board of County Commissioners of Brunswick County, N. C. at Southport, N. C. will be received until Two O'clock P. M., October 17th, 1921, for furnishing all material, equipment and labor for the following work:

Approximately 74,000 square yards of Sheet Asphalt, Asphaltic Concrete or Warrenite-Bitultic Road Paving, complete with the necessary curb and pipe drainage; also approximately twelve concrete culverts, all as adopted by said Board.

Each bid shall be accompanied by a certified check for at least FIVE THOUSAND (\$5,000.00) DOLLARS. Certified check shall be made payable to the Chairman of the Board of Commissioners of Brunswick County, N. C. A satisfactory "Bidder's Bond" will be accepted in lieu of a certified check.

The right is reserved to reject any or all bids.

Plans and specifications can be seen at the office of the Register of Deeds at Southport, N. C. and at the office of the Engineers at Elberton, Ga. Copies of the plans and specifications may be obtained from the Engineers upon payment of Twenty Five (\$25.00) Dollars. Fifteen Dollars of which will be refunded upon their return in good condition. Specifications may be obtained from Engineers upon payment of Two (\$2.00) Dollars.

JOHN JENNETTE,
Chairman.
W. H. WALKER,
Register of Deeds and Ex-Officio Clerk of the Board of County Commissioners.
H. S. JAUDON ENGINEERING CO.,
Engineers, Elberton, Georgia.

Bids close October 5, 1921.

\$30,000 5% School Bonds

Clinton, La.

Sealed bids will be received until 10 o'clock A. M. on Wednesday Oct. 5, 1921 for \$30,000 School District No. 6, East Feliciana Parish, bonds, bearing date of January 7, 1920, in denominations of \$1,000 each, bearing interest at the rate of 5 per cent per annum, interest payable annually.

The bonds mature serially, being payable \$3,000 each year for 10 years.

Bonds will be sold for not less than 90 cents on the dollar and accrued interest.

The right is reserved to reject any and all bids.

For further information apply to the Parish Superintendent of Schools, Clinton, Louisiana.

Bids close October 4, 1921.

Notice to Culvert Manufacturers.

Clearwater, Fla.

Bids will be received by the Board of County Commissioners, Pinellas County, Florida, at the Court House, Clearwater, Florida, up until 11:00 o'clock A. M. Tuesday, October 4th, 1921, for furnishing the following materials:

30 pcs. 16 gauge	12 inch Corrugated
Culvert 14' long	
40 pcs. 16 gauge	15 inch Corrugated
Culvert 14' long	
10 pcs. 16 gauge	18 inch Corrugated
Culvert 14' long	
20 pcs. 16 gauge	24 inch Corrugated
Culvert 14' long	
6 pcs. 14 gauge	30 inch Corrugated
Culvert 14' long	

The above to be complete with Connecting bands and one end of each pipe to be reinforced with steel rod. Prices submitted f.o.b. any point in Pinellas County, Fla. Chemical Analysis to be submitted with bid.

The right is reserved to reject any or all bids.

J. N. BROWN,
Clerk Board of County Commissioners.

Bids close October 17, 1921.

Power Plant Equipment

Crowley, La.

Scaled bids will be received by the City of Crowley, Louisiana, at the office of J. O. Herpin, City Manager, until 10:00 A. M., Monday, October 17, 1921, on the following items of power plant equipment, f. o. b. respective points of manufacture, to wit:

1. One Crude-Oil Engine, between 350 and 400 brake horse power standard rating, complete with all accessories usually furnished by engine builders, including exhaust muffler, outboard bearing and extension shaft to carry direct-connected alternator and exciter, this shaft to be shipped freight prepaid to the electrical manufacturer.

2. One Oil-Engine Type Alternator, 2300 volts, 60-cycle, 3-phase, of capacity and speed to suit selected engine,—without base, shaft or bearings, but with dampening winding, generator rheostat, discharge resistance, foundation bolts, sole plates and pressing rotor on extension shaft furnished by engine builder.

3. One Engine-Type Exciter, of capacity and speed to suit selected Engine and Alternator,—without base, shaft or bearings, but with rheostat, foundation bolts, sole plates and pressing armature on extension shaft furnished by engine manufacturer.

4. One Switchboard, per specifications on file in office of City Manager at Crowley.

Bidders will submit their own specifications, guarantees, etc., and specify earliest possible delivery dates, shipping weights and freight rates to Crowley.

Each bidder on item 1 is requested to submit a complete list of all American installations of the size and type of engine offered.

Each bid on Engine or Electrical Apparatus must be accompanied by certified check drawn in favor of the City of Crowley, Louisiana, for five per cent (5%) of the total amount thereof, which shall be deposited as a guarantee that the bidder will enter into a contract and furnish an acceptable faithful-performance bond for the full amount of the contract within 30 days after his bid is accepted.

The City of Crowley reserves the right to accept any bid, to reject any or all bids, or to contract for either one or two Engines, Alternators, Exciters and Switchboards, on the basis of the prices quoted.

Bids close October 5, 1921.

Public Road Work.

Brooksville, Fla.
Notice is hereby given that the Board of County Commissioners of Hernando County, Florida, will at their regular meeting to be held on October 5th, 1921, proceed to consider sealed bids for, first, Public Road work in Hernando County, Florida, the county to furnish materials, and second, for Public Road work and material therefore to be furnished by bidder. Each under plans and specifications now on file in the Clerk's office in said county;

The above said plans and specifications or a copy thereof may be obtained from the Clerk at any time.

Sealed Bids may be filed with the Clerk at any time before one o'clock P. M. October 5, 1921.

Board reserves the right to reject any and all bids.

Witness my hand and seal of office this Sept. 8th, 1921.

H. C. MICKLER,

Clerk of the Board of County Commissioners of Hernando County.

Bids close October 3, 1921.

Liquid Asphalt.

Brooksville, Fla.
Sealed bids will be received by the Board of County Commissioners of Hernando County, Florida, at the Clerk's office at Brooksville, Florida, up to 1 o'clock P. M. Oct. 3, 1921, for furnishing the County Fifty to One Hundred Thousand (50 to 100,000) gallons liquid asphalt according to specifications for said material on file in the office of the Clerk of Circuit Court, Brooksville, Florida.

Each bid must be accompanied by a certified check payable to the Board of County Commissioners in the amount of Two Hundred Dollars as a guaranty that the bidder will, if awarded the contract, give satisfactory bond and enter into contract promptly for furnishing said material.

Specifications will be forwarded to any address on receipt of request made to H. C. Mickler, Clerk.

The Board reserves the right to reject any or all bids.

By order of the Board of County Commissioners.

R. T. HANCOCK,

Chairman.

H. C. MICKLER,

Clerk.

Bids close September 27, 1921.

Road Construction

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Sealed Proposals for building Two sections of State Highway, as follows:

FREDERICK CO. CONT. No. F-46—One section of State Highway thru Middletown, a distance of 0.95 miles (Concrete Shoulders and Constructing curb and gutters)

ANNE ARUNDEL CO. CONT. No. AA-22—One section of State Highway from Steuarts Corner toward Davidsonville for a distance of 2.0 miles. (Gravel)

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 27th day of September 1921, at which time and place they will be publicly open and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of \$10.00 as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 15th day of September, 1921.

J. N. MACKALL,

Chairman.

L. H. STEUART,

Secretary.

Bids close October 3, 1921.

Highway Construction

Sealed proposals will be received at the Court House, Harrisonburg, La. up until 12 o'clock noon Monday October 3, 1921, by the Police Jury of Catahoula Parish for constructing the following highways:

Harrisonburg—Jonesville, approximately 11 miles.	
Harrisonburg—Jena, "	16
Harrisonburg—Winnsboro, "	13
Harrisonburg—Columbia, "	18
Winnsboro—Clayton, "	19

Information as to location, character of work, extent and class of materials, terms of payment, regulations governing manner of submitting proposals and executing contract may on application be obtained at the office of the Parish Engineers, Court House, Harrisonburg, La.
The right is reserved to reject any or all bids.

J. B. FAIN,

President of Police Jury.

R. M. TALIAFERRO,

Chairman Board of Supervisors

Road District No. 1.

HOWARD WRIGHT,

Chairman Board of Supervisors

Road District No. 2.

Attest:

J. K. McGee,

Secretary Police Jury.

Bids close October 11, 1921.

Sanitary Sewers**OFFICIAL NOTICE NO. 8**

Published by the Authority of the Sewerage Commission of the City of Hagerstown, Maryland

Sealed proposals for building Sanitary Sewers in certain Streets, Alleys, Rights of Way secured and to be secured, and other localities, will be received at the Office of the Sewerage Commission in Police Headquarters Building, until 7:30 P. M., Oct. 11th, 1921, at which time and place, during the session of the Sewerage Commission, the proposals will be publicly opened and read.

The work to be done embraces the building of approximately 25,000 lineal feet of Sanitary Sewers, ranging in size from 20" to 6" with all Manholes, Foundations and Appurtenances, also approximately 20,000 lineal feet 6" House Connections and 8,000 lineal feet 4" and 5" extra heavy soil pipe.

On and after Sept. 16th, 1921, Specifications and Blank Forms of Proposals can be obtained, and Detailed Plans examined at the offices of the Sewerage Commission, and a full set of plans will be sent to any Contractor, on the receipt of \$10.00, the same to be returned upon the surrender of the Plans, in good condition.

The Sewerage Commission of the City of Hagerstown reserves the right to reject any and all bids.

E. LEROY HEARD,

Secretary.

Countersigned:

JOHN CARMICHEAL, Chairman.



CLASSIFIED OPPORTUNITIES

MINERALAND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES,

TO INVESTORS

Am located in the heart of the coal, oil and gas fields of the State; prices are reaching the low limit, some bargains left; good ones too; in developed and undeveloped properties, if you are interested or know of parties who are, it will be to your advantage to correspond with the undersigned, can save you money. Best of references furnished. P. O. Box No. 518, Charleston West Va.

COAL LANDS AND MINES

COAL—400 acres Jeff. Co., Pa. on P. R. R. 5 ft. seam; good railroad fuel. Coal in zone nearest to Buffalo and Canada. Alex. Waite, Reynoldsville, Pa.

FOR SALE—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil write Cavanagh, McAlester, Okla

GRANITE FOR SALE

GRANITE curb, blocks or rubble, any size; can furnish from one to fifty cars quick. If you want to save a dollar write or come and see me for prices. J. W. HAYGOOD, Dealer in Granite, Lithonia, Ga.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, post-office or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 25c. per line; 300 lines, 25c. per line; 500 lines or more, 25c. per line.

LUMBER AND BUILDING MATERIAL

WHEN IN NEED of flooring, ceiling, siding, finish, roofers, lath, shingles and dimension; write Stephens Lumber Co., Jacksonville, Fla. 50 E. 42d St., New York city, or Hibernia Bank Bldg., New Orleans, La.

PILING — POLES — TIES — For Sale. All Southern woods. We solicit large contracts. Heavy stocks carried at all times. QUICK SHIPMENTS — GRADES GUARANTEED THE BEST. Hall Bros. Cedar Co., Jacksonville, Texas.

LUMBER AND BUILDING MATERIAL

I have for sale two million feet of air-dried boards which can be delivered at once. Address F. C. Shackelford, Box 434, Athens, Georgia.

TIMBER**TIMBER FOR SALE.**

From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

TIMBER OPERATION

FOR SALE—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 6700, care Manufacturers Record, Balto., Md.

TIMBER LAND

We must sell at once 13,000 acres gum timber suitable for pulp manufacturers. additional acreage adjoining can be purchased from original owners; this property is on deep water, and is accessible for water and rail shipments to Northern Ports. For further information wire or write Clarence C. Phillips & Bro., Georgetown, S. C.

BARGAIN IN FLORIDA TIMBER LAND—34,560 acres virgin pine and cypress, over hundred million feet never cut nor turpentined. Rail and water convenient. Good land for colonization, \$6.00 per acre, in fee. Address Van Pelt & Hunter, Miami, Fla.

CITY PROPERTY

AT MUSCLE SHOALS, ALA.—For Sale: 17½ acres suitable for building lots or plant site, on state road, 1 mile from Wilson Dam on Tennessee River 1½ miles from L. & N. R. R., and 1 mile from city limits, Florence, Ala. For price and terms Address 5867 care Manufacturers Record, Balto., Md.

FRUIT, FARM AND TRUCK LANDS

ARKANSAS

SPECIAL LOW PRICES.

Upland, Valley and bottom farms, any size or location. Cutover lands. Rice, Grain, Hay and pasture lands. Preparing to drill three test wells for oil in this County. T. W. Altman, Jonesboro, Arkansas.

FLORIDA

FLORIDA. — Did you ever think about Florida strawberries—marketed December to May—potatoes, cabbage, lettuce, celery, etc., and the high prices they bring? We also ship in trainload the best oranges and finest grapefruit in the world. Send for 1921 list of groves and farms. Tampa-West Coast Realty Co., Inc., opposite Postoffice, Tampa, Fla.

FOR SALE

Florida Lands—160 acres, mile front on St. Joe Bay; Calhoun County 5 miles to R. R. Post Office and Ice Plant. \$2500 dollars. J. M. Callaway, Owner Post Office Box 2521, Tampa, Fla.

FOR SALE—Everglade muck lands along the Tamiami Trail, also lots in Tamiami Townsite, 28 miles west of Miami. An investment opportunity worth investigating. Realty Securities Corporation, Miami, Fla.

MARYLAND

144 ACRES, 6-room house, two barns, fruit, etc., 90 acres clear, 54 acres woods, to settle estate, price \$4500. Richard W. Cook, 11 E. Lexington St., Baltimore, Md.

OHIO

Farms for sale on the head waters of the Little Scioto River. C. F. Carter, R. E. Agt., Oak Hill, Ohio, Box 42, R. No. 2. Bids close October 3, 1921.

VIRGINIA

FOR SALE OR EXCHANGE—One of the best 500-acre grazing and stock farms in Virginia. Will take as part payment city property or coal land. Address No. 5827, care Manufacturers Record, Baltimore, Md.

700 Acre Virginia Estate at Auction.

Monday, September 26, 9:30 A. M.

at Monroe, Virginia, 7 miles

North of Lynchburg on Main Line Southern Railway; the Southern runs through the property. Spring Garden Farm, the old Adams Colonial Home, subdivided. From 150 to 300 acres with the home and Manager's residence, House, Modern Equipment, 3 bath-rooms, ten rooms, slate roof. Magnificent View of Blue Ridge. Over a mile of box-wood, beautiful gardens. A bargain for somebody. Attend this sale; you won't regret it. The property goes regardless of the bid. Robert Tait, Owner. United Realty Company, Wilmington, N. C. Selling Agents, O. T. Wallace, General Mgr., Summer headquarters, Frederick, Maryland.

FOR SALE

97 acres adjoining the City of Roanoke. Best lot sub-division; big money-maker; good terms at quick. Address No. 5876 care Manufacturers Record.

WEST VIRGINIA

GENTLEMEN'S COUNTRY ESTATE AND MAGNIFICENT COLONIAL RESIDENCE. 375 acres on dandy macadam road; adjoining Sweet Briar College Estate. New York trains stop. Handsome brick, slate-roof, dwelling with 17 elegantly appointed rooms; hot water heat; electric lights; running water; wonderful view; an ideal place to live. Price \$50,000.00. Catalogue free. — Oglesby Real Estate Agency Inc., Lynchburg, Va.

THE BEAUTIFUL SHENANDOAH VALLEY.

Fine homes, fine farms, and it and the Eastern Panhandle of West Virginia the best orchard land in the world; convenient to the best markets. Write me for information. S. S. Felker, Public Square, Martinsburg, W. Va.

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DITCHING.

Austin No. 0 machine digs for pipe lines 16 feet deep, 20 to 40 inches wide. For drainage it gives banks half-to-one slope, any depth to 6 feet, with 25-inch bottom. When 6 feet deep the top width is 8 feet. I dig by yard or lineal foot, or will furnish crew and work by the day. Best work at reasonable prices. References furnished. Machine now available. J. C. Stancil, Smithfield, N. C.

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FOR SALE—Lumber Milling Proposition, 5,000 acres in fee, complete equipment, now in operation. West Virginia. 15,000,000 feet of timber, 500,000 feet now on stick. This property will be sold at a bargain. Address Jno. C. Chidester, Weston, West Virginia.

MY ASSOCIATIONS with responsible New York Underwriters enables me to prepare your propositions in a manner which will demand their serious consideration. Attorney Alfred S. Perry, Fairfield, Conn.

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There are more real opportunities in the South today than in any other section of the globe; the tide has turned and we are in for a bigger more permanent state of prosperity than ever in the past. If you are interested in making a most profitable permanent connection, where the climate is ideal the year round, and in one of the big centers of activity in the South, with a reputable business concern of long standing, holding a record of big earnings behind it, and a future before it, and if you have the ability, executive or sales, and can produce, it may prove of value for you to answer this adv., provided you mean business, and can point to a clean record and invest from fifteen to twenty thousand dollars. Address No. 5883 care Manufacturers Record, Balto., Md.

Correspondence is invited looking to the establishment of plants for the development of the sugar industry throughout the territory served by the Apalachicola Northern Railroad in Calhoun, Franklin, Liberty and Gadsden Counties, Florida. Thousands of acres already in successful cultivation.

The St. Joseph Land and Development Company is prepared to offer liberal inducements to secure the cultivation of its acreage and the manufacture of sugar.

Port St. Joe enjoys superior advantages for the importation of raw sugars. Address Bryan Snyder, Vice-President, Port St. Joe, Florida.

Will join with man or firm on fifty, fifty basis in general building construction business. Have nominal capital to invest and can take care of business getting and concern. Ten years experience with own company. Will go anywhere. Address No. 5873 care Manufacturers Record, Balto.

ELECTRIC MOTOR agents wanted in unoccupied Southern territory by old established concern. Applicants must have financial responsibility and must be able to sell motors. An opportunity to connect with a manufacturer who will co-operate with you to develop business. Address: No. 5871 care Manufacturers Record, Balto., Md.

FOR SALE—Active old established, well paying manufacturing plant, sash doors, millwork, remilling plant, lumber and general building material. Sales for 1920 one and one-half million dollars. Best location in state of Florida. Buyer must have at least \$100,000. cash or its equivalent and convince seller he knows the business that it might be successfully carried on. Business now good. If interested address No. 5863 care Manufacturers Record, Balto. Md.

Water works and electric plant to supply water and light to the suburb of a large City. Fine proposition. Address No. 5875 care Manufacturers Record.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

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FURNITURE or hardware stock wanted for 3,000-acre tract Central Florida Land. Solid block. On hard road near R. R. W. A. Kieffer, 4615 Forest Ave., Kansas City, Mo.

WANTED—A good-sized block of high-grade stock of exceptional earning possibilities to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway New York Established 1894

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INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandlee, 412 7th St. N. W., Washington, D. C.

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FOR SALE—Factory site in heart of manufacturing district, about two acres, on R. R. siding, Street R. R. and paved road. Attractive price for quick sale. Address owner, Geo. W. Hays, 404 So. 54 St., Birmingham, Ala.

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CHEAP NATURAL GAS FOR FUEL

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One of 40,000 spindles.

One of 4300 spindles.

Write or wire for particulars.

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FOR SALE—Factory manufacturing patent-ed, mechanical wooden toys, thoroughly equipped, plenty trained labor. Toys are a success, and are being handled by biggest toy houses in America. Plant can be moved at small expense to another city. Splendid opportunity. For particulars, write Lock Box No. 67, Cambridge, Maryland.

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FOR SALE or rent, factory building, 10,000 square feet floor space and ample site, on trunk railroad, suitable for furniture making or any kind of wood working, and other uses, near 20½ square miles industrial site of United States Steel Corporation, being developed as their Gulf manufacturing and export terminal. Gulf Realty Co., Mobile, Ala.

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Well equipped foundry and machine shop with good established trade on line of Southern Railroad in Western North Carolina. Will lease to reliable parties or sell. Owner's time taken up with other matters. If interested advise No. 5878 care Manufacturers Record, Baltimore, Md.

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HAVE YOUR inspections made at a minimum cost by a practical mechanical man of over twenty years' experience, locomotives, cars, machinery, and all railroad equipment a specialty, your interest will be protected. Box 269, Altavista, Va.

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HENRYETTA, OKLAHOMA, HAS:

60 Active Coal Mines, 300 Oil Wells, 6,000,000 cubic feet daily of Fuel Gas, 12 Schools, including Senior and Junior High with College affiliation.

Modern Churches, Tested Drinking Water with ample supply for factories. Adequate supply of Male and Female Labor.

Good Climatic conditions, Quick Railroad Service—and

Offers Free Sites—from a city lot to acreage property—as an inducement for manufacturing enterprises.

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LURAY, VA., location of Luray Caverns, one of the best advertised towns in the world, with a dozen industrial plants, wants more. On N. & W. R. R. and projected Lee highway. Labor reasonable and abundant, 1600 H. P. hydro-electric plant. Water supply from Blue Ridge mountains. Unsurpassed social, church and school advantages. Write Luray Board of Trade.

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Nashville Chamber of Commerce wishes to correspond with responsible parties relative to establishment of refrigerator manufacturing plant. Unique opportunity in virgin field. Very attractive proposition can be made to right parties. Address W. R. Manier, Sr., Secy., Nashville, Tenn.

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Contracting manager, with broad experience in general building construction as head of own business for ten years. Can handle project from the taking of contracts to completion of work. Best of references and can invest nominal sum if necessary. Will go anywhere desired. Address No. 5874 care Manufacturers Record, Balto.

EXPORT Executive 7 years experience selling and managing export houses, speaking Spanish fluently, seeks position as export manager or travel abroad for Southern firm. Highest references. Address No. 5882 care Manufacturers Record, Balto., Md.

Chemistry position desired by young lady, senior University Student. Experienced assistant instructor in University. Also about two years practical experience. Address No. 5884 care Manufacturers Record.

First class master mechanic, or superintendent of shops, machinist by trade, desires position in a supervisory nature in charge of shops or machinery, experienced in handling all classes of labor; can get results. Would consider a salesman position handling a good line of machinery or mill supplies. Address No. 5881 care Manufacturers Record, Balto., Md.

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MANUFACTURERS ONLY

of Hosiery, (Complete line) Cotton Goods, Woolen Goods, Silk Gloves or Underwear, who have no direct or satisfactory representative in Argentina, Uruguay, Chile and Paraguay, may secure, at no expense, a guaranteed reliable and competent representation, by promptly communicating to the address below. All communications in strict confidence. Reply will be made in person, by appointment, when full information and references will be given, by importer from Buenos Aires, just arrived in the United States, who is in possession of the latest information concerning conditions in South America. Address No. 5879 care Manufacturers Record, Balto., Md.

BUSINESS MAN with office in Atlanta, Ga. would like to handle sales in Southern territory for manufacturer of high grade specialties in iron, steel, aluminum, brass or bronze. Address No. 5872 care Manufacturers Record, Balto., Md.

MANUFACTURERS' AGENT—Can handle one or two more accounts in Southeastern States. The territory will be covered closely by exceptionally good salesman of long experience in handling Southern trade. Address P. O. Box 1394, Charlotte, N. C.

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IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such position; executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bizby, Inc., 308 Lockwood Bldg., Buffalo, New York.

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SALESMAN—One who is calling on power plants in any part of Pennsylvania, New Jersey, Delaware, Maryland to sell on commission as side line high grade article that is needed and wanted by every power plant. Address No. 5880 care Manufacturers Record, Baltimore, Md.

Retail yard foreman to handle deliveries and complete charge of yard. Shop man to handle Universal Worker and Frame Machine. To report at once. Address No. 5885 care Manufacturers Record, Balto., Md.

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4-512 H. P. Class 5-26 Stirling Boilers—Hand Fired Practically new—160 lb. working pressure.

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1 Beach Mfg. Company, Cut Off Saw, carriage 6' x 4'.
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Cold race Steel Shafting, sizes 3-7/16", 2-7/16", 1-15/16" a lot of cast and Wood Pullies, etc. Address No. 5886 care Manufacturers Record, Baltimore, Md.

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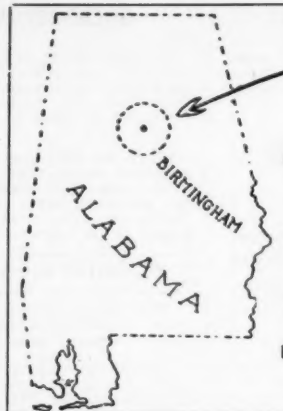
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Two(2) 338 HP. Heine Water Tube Boilers, pressure allowed last inspection 200 lbs., single drum type, hand fired, complete with Bayer Soot Blowers, full front, full set of castings, and steam trimmings. Immediate shipment. An unusual opportunity to secure a pair of high grade boilers at an exceptionally low figure.

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- 1—120 B. H. P. vert., 3 cyl., coupled or belted.
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120" dia. x 10' 2 1/2" long,	6,000 gallons.
120" dia. x 13' 0 1/2" long,	8,000 gallons.
120" dia. x 15' 2 1/2" long,	9,000 gallons.
120" dia. x 20' 2 1/2" long,	12,000 gallons.
120" dia. x 25' 2 1/2" long,	15,000 gallons.
120" dia. x 26' 1 1/2" long,	16,000 gallons.
120" dia. x 30' 2 1/2" long,	18,000 gallons.
120" dia. x 33' 5 1/2" long,	20,000 gallons.
120" dia. x 35' 2 1/2" long,	21,000 gallons.
120" dia. x 40' 2 1/2" long,	24,000 gallons.
20" dia. x 21' 4" high,	50,000 gallons.
26" dia. x 27' 3" high,	100,000 gallons.

FOR ACID STORAGE

102" dia. x 24' 6" long, 10,000 gallons.

ALL NEW

Regular "Sharpsville" Quality
SHARPSVILLE BOILER WORKS CO.
Sharpsville, Pa.

RETURN TUBULAR
LOCOMOTIVE

BOILERS

WATER TUBE
SCOTCH MARINE

A LARGE STOCK OF HIGH-GRADE BOILERS OF PRACTICALLY ALL SIZES, TYPES AND MAKES, TAKEN OVER FROM DU PONT CHEMICAL COMPANY'S AND OTHER PLANTS WITH PRODUCTION RECORDS—RECONDITIONED, OFFERED SUBJECT TO ANY INSPECTION, AVAILABLE NOW!

"SAVE TIME AND MONEY ON YOUR POWER INSTALLATION—LET DAVIS FURNISH THE BOILERS"

LONG DISTANCE
TELEPHONE
CENTRAL 1494

J. F. DAVIS

122-1123-1124
HARRIS TRUST BUILDING
CHICAGO, ILL.

RETURN TUBULAR BOILERS

- 1—78" x 20' 125-lbs. working Pressure.
5—72" x 18' 125-to 150-lbs. working Pressure.

LOCOMOTIVE TYPE BOILERS

- 1—150 H.P. Economic,
6—80 H.P. New Water Front open Bottom,

HOISTING ENGINES

- 2—0 1/2" x 12" Lambert D.C.D.D. with A.S.M.E. Boiler,
1—8 1/2" x 10"
3—7" x 10" D.C.D.D. with Boilers,
2—9" x 10" Lambert D.C. 3-Drum Skeleton,
3—9" x 10" Mead-Morrison 3-Drum Skeleton,
1—8 1/2" x 12" Contractors Plant 3-Drum Skeleton,
2—30 H.P. Lidgerwood D.D. Gasoline,
2—8 1/2" x 10" D.C.D.D. Skeleton,
7—7" x 10" " "

Many smaller sizes.

Pumps, Steam-Triplex-Centrifugal, almost every size and for every duty.

LOUIS A. TARR, INC.

203 W. Conway St., Baltimore, Md.

Equipment for Sale at a Bargain

- 1—Casey-Hedges Marine Type Boiler, 125 lb. steam pressure, 60 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete grate bars.
1—Walsh and Weldner Marine type boiler, 125 lb. steam pressure, 110 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.
1—Casey-Hedges Marine type boiler, 125 lb. steam pressure, 40 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.
1—Walsh and Weldner Locomotive type boiler, 125 lb. steam pressure, 50 H. P. water column, steam gauge, gauge cocks, injector and pop valve complete, grate bars.
1—No. 5 Standard Emerson Pump. Cast Iron body, 8" suction and 6" discharge.
1—Houston Stanwood and Gamble Class H cross compound engine, 100 H. P. Cylinders, 10 x 15 x 16. Fly wheel 72" x 16".
1—Chandler and Taylor Engine, 60 H. P. 11 x 14 cylinders.
1—Ingersoll-Rand Air Compressor, class A. Shop No. 7862 speed 155 r. p. m. 383 Cu. Ft. air p. m. When steam pressure is 100 lb. per square inch H. P. is 76.
1—Ingersoll-Rand Air Compressor, N. S. 1—Shop No. 15562 speed 210 r. p. m. 96 Cu. Ft. Air p. m. Requires 18 1/2 H. P.
Above machinery located at Chattanooga, Tennessee, and will be sold at a bargain. Wire, write, or phone.

MILLS CONTRACTORS EQUIPMENT CO.

Chattanooga, Tennessee

TURBINES

- 3—75 K. W. 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

PLANERS

- 1—Patch straight side, 6' x 18" x 12' bed.
1—Patch straight or circular, 7' to 75' radius.

BOILERS

- 1—75 H. P. Economic Type Boiler, 100 lbs. pressure.
4—150 H. P. R. T., 125 lbs. pressure.
1—100 H. P. Economic Boiler, 100 lbs. pressure.

CRUSHER

- 1—Sturtevant Roll Jaw, size 6" x 15".

ROLLS

- 1—Sturtevant Balanced Roll, size 20" x 14".

LATHES

- 10—19x8 Le Blond, double back geared, quick change, belt driven.

HOISTING ENGINES

- 1—20 H. P. Mead-Morrison Bridge Hoist.
1—40 H. P. S. D., 220-volt, D. C. Lidgerwood Builders' Hoist.
1—6 1/4 x 10 S. S. D. Lidgerwood, with boiler.
2—7 1/4 x 10 D. C. D. National, with boiler.
2—7 1/4 x 10 D. C. D. Mundy, with boiler.

AIR COMPRESSORS

- 1—350-ft. Air, Bury, steam.
1—1000-ft. Air, Sullivan.
1—60-ft. Air, Nagle, new, belted.
1—175-ft. Air, Ingersoll, steam.
1—190-ft. Air, American, steam.

PUMPS

- 1—1000-gal. Knowles Single.
1—750-gal. Worthington Duplex.
1—500-gal. Advance Duplex.
40—Scranton, size 6x5 1/4 x 6, new.

DRYER

- 1—Louisville Steam Dryer, size 6' x 25'.

MALLORY MACHINERY
CORPORATION

BALTIMORE

MARYLAND

NEW MOTORS—Immediate Shipment

Quan.	H.P.	V.	R.P.M.	Type	Make
3	25	220	850	K	R. & M.
1	40	220	1200	B	Fairbanks-Morse.
1	40	220	1200	H	Fairbanks-Morse.
1	40	440	900	H	Fairbanks-Morse.
1	50	440	900	H	Fairbanks-Morse.
1	50	220	1200	H	Fairbanks-Morse.
1	50	440	850	AN	Allis-Chalmers.
1	75	440	900	B	Fairbanks-Morse.
1	75	220	865	AN	Allis-Chalmers.
1	150	2200	600	Q	Crocker-Wheeler.

GEO. F. MOTTER'S SONS

Steam and Electrical Engineers

YORK, PA.

EQUIPMENT FOR SALE

- 2—150 H. P. R. T. Boilers, 100 lbs. pressure.
1—125 H. P. Side-crank Engine.
2—Hand-power Traveling Cranes, 24 and 29-ft. span, 5-ton capacity.
1—40" or 42" Gauge Locomotive (Baldwin), 10 ton.
1—25 H. P. D. C. D. "Byers" Hoisting Engine, with or without boiler.
1—16 H. P. "Pen Argyle" D. D. D. C. Hoisting Engine, no boiler.

SOUTH SIDE FOUNDRY & MACHINE WORKS

Charleston, W. Va.

**Harris Brothers Co. offers
Guaranteed
EQUIPMENT
Available Now!!**

KEWANEE FIRE BOX BOILERS

46—Splendid Kewanee low pressure fire box heating boilers, excellent condition—95% new. Brick set type, complete with all casings and trimmings, and include shaker grates Nos. 13, 14, 16, 18 special, and 111 smokeless.
12—Kewanee No. 45 water heating garbage burners, type "H", 95% new, capacity per hour 50 degrees raise, 2800 gallons.
150,000 ft. American Radiator Co. Roco pattern wall radiation, 5, 7, and 9 ft. sections.
Get list of material and equipment from our sale at Great Lakes Naval Training Station of Camp Perry and Camp Dewey. Complete buildings, lumber, doors, windows, plumbing and heating material, pipe, electrical apparatus, kitchen equipment, valves, fittings, smoke stacks, tanks, roofing, skylights, etc. Your copy of this bargain list is waiting, ask for Bulletin GL-2 today.

HOISTING ENGINES

1—8 x 12-in. Russell, double cylinder, double drum Hoisting Engine, heavy duty type, without boiler.
4—7 1/2 x 10-in., double cylinder, single geared drum Hoisting Engine, with reversing throttle valves.
1—2 1/2 x 8-in. Clyde Double Cylinder, double friction drum Hoisting Engine, with two winch heads, drums 14" diam., 20" between flanges complete with fittings. (No Boiler). Base is made for Boiler.

STEAM SHOVELS

6—25-ton Bucyrus Railroad Type, 5-yd. dipper: 80 per cent new.
10—70-ton Bucyrus Railroad Type, 2 1/2 to 3-yd. dipper: 80 per cent new.

LOCOMOTIVE CRANES

15 ton American 45 ft. boom, 8 wheel type
10 ton Industrial 35 ft. boom, 8 wheel type.

DUMP CARS

150—12-yd. Western & Oliver all-steel, two-way Dump Cars, standard gauge.
50—1 1/2 yd. 20-in. gauge, wood body, two-way Dump Cars.
3—36-in. gauge, 8-wheel Flat Cars, 40,000 lb. cap., 7-ft. wide, 20-ft. long, wheels 24-in. diam.

CENTRIFUGAL PUMPS

1—6-in. Swaby Horizontal Centrifugal Pump.
1—3-in. Fairbanks-Morse Horizontal Centrifugal Pump.
1—12 in. Worthington Horizontal Centrifugal Pump.
1—24-in. Kingsford Horizontal Centrifugal Pump.

AIR COMPRESSORS

1—450 ft. Cap., Ingersoll 2 stage, belt driven Air Compressor, 100 lb. pressure.
1—1800 ft. Cap., Class W. B. 2. Sullivan Steam Driven Air Compressor, 100 lb. pressure.
2—Single Tandem Fuel Oil Driven Compressors, Chgo. Pneumatic Tool Co., No. S. O. 2.

TANKS

1—53 in. by 13 ft. 6 in. tank, 3/4 in. material; 100 lbs. pressure.
1—54 in. by 7 ft. 6 in. tank, 7/16 in. material; 100 lbs. pressure.
1—48 in. by 12 ft. tank, 3/4 in. plate; 100 lbs. pressure.
6—54 in. by 54 in. tank, 3/4 in. plate; 125 lbs. pressure.
1—48 in. by 8 ft. tank, 5/16 in. plate; 100 lbs. pressure.
1—30 in. by 11 ft. 6 in. tank, 3/4 in. material; 125 lbs. pressure.
1—30 in. by 7 ft. 6 in. tank, 3/4 in. material; 100 lbs. pressure.
6—27 in. by 3 ft. tank, 3/4 in. plate; 100 lbs. pressure.
1—24 in. by 11 ft. 6 in. tank, 7/16 in. material; 200 lbs. pressure.
30—30,000 gallon Vertical Storage Tanks, 20 ft. diameter, 12 ft. high, mostly 5/16 in. material.
50—11,500 gallon hor. Storage tanks, 8 ft. diam., 30 ft. long, about 7/16 in. plate.
25—5500 gallon hor. storage tanks, 6 ft. diam., 24 ft. long, about 7/16 in. plate.

Write for Industrial Bulletin No. 204 describing complete stocks at Chicago.

HARRIS BROTHERS COMPANY
35th and Iron Sts., Chicago, Ill.

JOHN A. STEWART ELECTRIC CO.

S. W. Cor. Water and Vine Streets, Cincinnati, Ohio
1814 Continental Bank Bldg., Chicago, Ill. - 2112 Central Street, Kansas City, Mo.

MOTORS

1—1400 hp. Westinghouse Type C. W. Slip-ring Rolling-mill type Motor, 3-ph., 60-cy., 2300 volts, 565 r.p.m., with magnetic control panel complete. This motor is brand new and in original crate.
1—1250 Kva. Westinghouse Synchronous, 6600 volts, 3-ph., 25-cy., 450 r.p.m., with starting motor.
1—750 hp. New Allis-Chalmers, 3-ph., 60-cy., 2200 volts, slip-ring, 505 r.p.m., with starter.
1—300 hp. New Allis-Chalmers, 3-ph., 25-cy., 440 volts, 455 r.p.m., slip-ring induction type, with drum controller.
1—250 hp. New G. E., 3-ph., 60-cy., 550 volts, 600 r.p.m., squirrel cage, 40 degrees.
1—200 hp. General Electric, 3-ph., 60-cy., 2200 volts, 1760 r.p.m., slip-ring motor, with starter.
1—250 hp. Allis-Chalmers, brand new, 3-ph., 60-cy., 2200 volts, 514 r.p.m., slip-ring induction motor, with Westinghouse primary, Cutler-Hammer secondary starter.
1—250 hp. Allis-Chalmers, 3-ph., 60-cy., 2200 volts, 370 r.p.m., slip-ring induction motor, with Westinghouse primary and Cutler-Hammer secondary starter.
2—150 hp. Allis-Chalmers, 3-ph., 60-cy., 440 volts, 865 r.p.m., squirrel-cage motors, with starters.
1—250 hp. Burke, 2 or 3-ph., 60-cy., 2300 volts, 600 r.p.m., synchronous motor, with direct-connected exciter and starting panel.
200 Motors, ranging from 7 1/2 to 75 hp., 3-ph., 60-cy., 550 volts, 40-degree motors, with controllers, at prices which will enable dealers with rebuilding-shop facilities to purchase, rebuild and sell at a profit. Detailed list mailed upon request.

TURBINES

3—500 kw. Gen. Elec. Vertical, 3-ph., 60-cy., 1800 r.p.m., 2300 volts, with 2000 sq. ft. surface condenser, with piping to headers. Beautiful condition. Immediate delivery.
2—400 kw. Westinghouse Bronze Bladed, 2 or 3-ph., 60-cy., 3300-2300-550-480 volts, 3600 r.p.m., condensing with 2500 sq. ft. surface condenser.

FREQUENCY CHANGERS

1—200 kw. G. E., 3-ph., 25-cy., 6000 volts, to 3-ph., 60-cy., 2400 volts, 750 r.p.m., four bearing; can be separated, making 2 motors.
1—400 kw. G. E., same as above, 375 r.p.m.
1—500 kw. G. E., same as above, 375 r.p.m.
2—1250 kva. G. E. 3-ph., 25-cy., 6600 volts, 375 r. p. m. motor type ATI to AC generator AQB, 5400/2700 volts, now 2-ph., reconnectable for 3-ph., 2300 volts, 62 1/2-cy., with direct connected exciter. Located near New York.
1—500 Kva. Westinghouse 3-ph., 25-cy., 6000 volts, 375 r.p.m. motor, to 2-ph., 62 1/2-cy., 2700 volts generator, reconnectable for 3-ph., no exciter. Located near New York.
1—400 Kva. G. E., 3-ph., 25-cy., 6000 volts, 375 r.p.m. motor to 2-ph., 62 1/2-cy., 2400 volts, generator (reconnectable 3-ph.), no exciter. Located near New York.

CONDENSERS

2—Westinghouse No. 11 Le Blanc Low-level Jet Condensers, complete with motor-driven pumps, strainers and piping. Used one year and now in perfect condition. Good as new. Immediate delivery Cincinnati.

GENERATOR AND ENGINE

1—240 kw. Ft. Wayne, 3-ph., 60-cy., 2300 volts, 150 r.p.m., revolving field with belted exciter, direct connected to 13x27x24 Russel tandem compound 4-valve heavy-duty engine. Excellent condition. Immediate shipment Cincinnati.

MOTOR GENERATOR SETS

Immediate Delivery

Installed Brand New—Never Operated
2—2140 kw. Allis-Chalmers 275-volt Direct current generator, direct connected to synchronous motor, 3-ph., 25-cy., 12,000 volts, with 300 kw. 275-volt (D.C.), 3-ph., 25-cy. Rotary Converter (used as exciter) and complete switchboard equipment.
1—1200 kw. Westinghouse 550 volt DC, 400 r.p.m. generator with 1700 hp. Westinghouse now 2-ph., 60-cy., 2200 volt, 400 r.p.m. synchronous motor (reconnectable 3-ph.). Located in Tennessee.
3—150 kw. Westinghouse 250 volt DC, 500 r.p.m. generator with 225 hp. Westinghouse 3-ph., 25-cy., 6600 volt, 550 r.p.m. synchronous motors. Located near New York.
1—100 kw. Westinghouse 125/250 volt DC, 1100 r.p.m. generator with 150 hp. Westinghouse 550 volt DC motor, 1100 r.p.m. with panels. Located Cincinnati.

BOILERS

2—480 hp. Sterling Water Tube, code built, 160-lb. working pressure, hand-fired grates, complete with all fittings.
6—500 hp. Aultman & Taylor, B. & W. Boilers, with Green chain-grate stokers, 200-lb. pressure.
4—490 hp. Springfield Water-tube, good for 150-lb. pres., complete with Murphy underfeed stokers and all fitting, excellent condition, immediate delivery, low in price.
20—250 hp. Wickes, with stokers and all fittings; excellent condition. These boilers can go into Michigan or any other State.

ROTARY CONVERTER

1—500 kw. Westinghouse, 2300 volts A.C., 250 volts D.C., with transformers and switchboard panels; fine condition. Immediate shipment.
1—300 kw. Westinghouse, 60-cy., 3-ph., 11,000 volts A.C., 550 volts D.C., with transformers A.C. and D.C. panels. Other transformers available for different ratios.
1—400 kw. G. E., 250 volts D.C., 185 volts A.C., 375 r.p.m.; no transformers.
1—500 kw. G. E., same as above.
4—100 kw. G. E., 3-ph., 25-cy., 80 volts to 125 volts, DC 750 r.p.m. with 150 kva. transformers, 6000 volts to 83 volts—3 air cooled, one oil cooled. Located near New York.

Engine Generator Sets

Write for Bulletin No. 2 describing some excellent units at most attractive prices and immediate delivery.

Would you buy a SECOND-HAND ELECTRIC MOTOR at ANY price?
If you KNEW it to be as good as new?
Write us your inquiries.
GREGORY ELECTRIC CO. Second-hand Electric Motors Bought, Sold and Exchanged.
CHICAGO, ILL. In business since 1893.
16th and Lincoln Streets Chicago, Ill.

**IRON AND STEEL SCRAP
BOUGHT AND SOLD**

Dismantling Propositions are Invited
A. M. WOOD & CO., Inc.
FINANCE BLDG., PHILADELPHIA, PA.

**IRON AND STEEL SCRAP
Bought and Sold**

OBSOLETE PLANTS WANTED
HENRY POTTS & CO.
650 Real Estate Trust Bldg.
PHILADELPHIA PENNSYLVANIA

New Corliss Engines.

27—18x36 Heavy Duty, Allis-Chalmers Corliss Engines, both right hand and left hand. 350 H. P. at 125 r. p. m. 11 ft. by 32 inches. Band wheel. Operated on 140-lb. steam pressure, 1 1/2 inch gauge back pressure, double eccentric.
THE NASHVILLE INDUSTRIAL CORP.
Old Hickory, Tennessee.

**7 1/2 K. W. Watson
Engine Generator
Sets**

for Marine or Industrial Lighting.
Very Special Price for Immediate Action.
\$1050.00 each Canadian Funds
In Bond at Toronto Warehouse—
Duty Free.

**The A. R. Williams
Machinery Co., Ltd.**
Toronto, Canada

**Direct Connected A. C. Units
3 Ph.—60 Cy.**

50 K. W. Westinghouse 2300-V. and Shepard Compound Auto Engine.
65 K. W. and 75 K. W. Westinghouse 2300-V. and Reeves Compound Auto Engines.
150 K. W. Bullock 480-V. and Ames Auto Engine.
350 K. W. Westinghouse 550-V. or 2300-V. and 26" x 38" Nordberg Heavy Duty Corliss.

**SPLENDID CONDITION.
LOW PRICES.**

Greensboro Supply Co.
Greensboro, N. C.

ELECTRIC MOTORS—TRY US REAL BARGAINS

NATHAN KLEIN & CO.
MOTORS 208 CENTER ST., N.Y. DYNAMOS

A. C. GENERATORS

- 1—25 KW General Electric, 3 phase, 60 cycles, 110 volts, 1,800 R. P. M.
1—150 KW Western Electric, 3 phase, 60 cycles, 2,300 volts, 900 R. P. M.
1—300 KW Westinghouse, three bearing type, phase, 60 cycles, 2,300 volts, 514 R. P. M.

A. C. MOTORS 3 PHASE, 60 CYCLES

- 1—15 H. P. Allis-Chalmers, 220 volts, 1,800 R. P. M.
1—15 H. P. General Electric, 220 volts, 1,800 R. P. M.
3—20 H. P. Allis-Chalmers, 22 volts, 860 R. P. M.
1—60 H. P. General Electric, slip ring, 2,200 volts, 1,150 R. P. M.
1—75 H. P. Westinghouse, 220-440 volts, 860 R. P. M.
1—100 H. P. Westinghouse, 220-440 volts, 860 R. P. M.

The above complete and in first-class operative condition.

THE JONES MACHINERY CORPORATION
ATLANTA, GEORGIA

30 KW A.C. Generator

General Electric, type ATB, 3 phase, 60 cycle, 240 volt, 1200 r. p. m. with $1\frac{1}{4}$ KW Exciter mounted on shaft. This apparatus is like new throughout and priced for quick sale at \$600.00 f. o. b. Philadelphia.

We Buy and Sell Everything
in Motors and Generators.

R. SCHEINERT COMPANY

123-125 N. 3rd St.

PHILADELPHIA, PA.

CASTLE & WILSON, 1671 Arrott Building, PITTSBURGH, PA.

MOTORS

- 1—100 H. P. Crocker-Wheeler, 2200 volts, 60-cycle, 3-phase, slip-ring, 690 R. P. M.
1—150 K. W. D. C. Crocker-Wheeler, 250 volts, 200 R. P. M., engine type.
1—200 K. W. D. C. General Electric, 200 R. P. M., 3-wire, 125 to 250 volts, with engine.
1—250 K. W. Bullock, 220-250 volts, direct current, 450 R. P. M., 3-bearing.

ENGINES

- 13 and $22\frac{1}{2}$ x 30" Buckeye 16 $\frac{1}{2}$ x 30" Buckeye
12 x 16" Buckeye. 12 and 21 x 27" Buckeye 18 $\frac{1}{2}$ x 24" Buckeye

WATER TUBE BOILERS

- 4—264 H. P. B. & W., 160 lbs., Ohio.
3—250 H. P. Franklin, 125 lbs. pressure.
1—400 H. P. B. & W., 150 lbs., Iowa.

AIR COMPRESSORS

- 1—18x18" Duplex, belt-driven. 2—23 and 13x20" Sullivan, belt-driven.
Other steam and belt-driven compressors on demand.

CONDENSER

- 1—12 and 20x21 Blake Single-cylinder Jet Condenser, brass fitted.

SPECIAL

- 1—300 H.P. Westinghouse, CX, 3 Phase, 60 cycle, 220/440 V. 600 R.P.M. motor.
1—250 H.P. Westinghouse, C, 3 Phase, 60 cycle, 220/440 V. 600 R.P.M. motor.
1—250 H.P. Crocker Wheeler, 3 Phase, 60 cycle, 585 R.P.M. motor, 220/440 V.
1—200 H.P. Westinghouse, C, 3 Phase, 60 cycle, 600 R.P.M. motor, 220/440 V.
1—250 H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 R.P.M.
1—200 H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 R.P.M.
1—100 H.P. Crocker Wheeler, 3 Phase, 60 cycle, 2200 V. 720 R.P.M.

**Motors, Generators, Engines, Air
Compressors, Tanks, Boilers, Hoists, etc.**
W. A. CARRELL & COMPANY

11 Second Ave.

Pittsburgh, Pa.

Bargains in Motors, Starters and Machinery.

We offer specially 1—6 foot radial drill motor drive.

- 1—Dynamic Balancing Machine motor drive.
1—Foster Screw Machine No. 3.
1—Searchlight, 48 inch ninety-nine million C. P.

MACHINERY CLEARING HOUSE CORP.

718 E. PRATT STREET

BALTIMORE, MD.

NEW — MOTORS — USED

Let us figure on your requirements

HARRY W. MOTTER

Electrical Power Equipment
YORK PENNSYLVANIA

A. C. MOTORS

Immediate Delivery. Large Stock,
Three Phase and Single Phase, Sizes $\frac{1}{8}$ to 50 H. P.
Send Us Your Inquiries Before You Buy.

SEEGER MACHINE TOOL COMPANY,
Machinery and Supplies

34 S. FORSYTH ST.,

ATLANTA, GA.

POWER

Steam Engine Generator Sets,
Dynamos and Motors In Stock.

Our erecting engineers are at your service.

COLEMAN-SHOEMAKER, Inc.

COMMERCIAL TRUST BUILDING PHILADELPHIA

Pipe, all sizes, bought and sold. What sizes are you in the market for? What sizes have you for sale?

PIPE & CONTRACTORS' SUPPLY CO.
3 Dover Street - - - NEW YORK

FOR SALE
PIPE SECOND-HAND All Sizes 1/4" to 24"

Furnished with new threads and couplings, suitable for every practical purpose.
Also large assortment of Contractors' Equipment, Hoisting Engines, Boilers, Concrete Mixers, etc.; all thoroughly overhauled.

MARINE METAL & SUPPLY CO.
167 South Street NEW YORK

PIPE

ALL SIZES SECOND-HAND
FOR ALL PURPOSES

Furnished with new threads and couplings or cut to specifications.

Fittings, Valves, etc.

We have modern equipment and are prepared to make prompt shipments.

JAMES F. GRIFFITH
412-24 Moyer Street
Philadelphia, Pa.

SPECIALY PRICED

- 2-50 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motors, 2 phase, 60 cycle, 220 volts, 900 R. P. M.
 - 1-35 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motor, 3 phase, 60 cycle, 220 volts, 900 R. P. M.
 - 3-50 H. P. General Electric D. C. Type D. L. C. Motors 220 volts, 650 R. P. M.
- Machine Tools
Boilers, Engines
Air Compressors, Pumps.

DELTA EQUIPMENT CO.
148 N. Third St. Philadelphia, Pa.

BOILER PLANT
FOR SALE

We own and offer for sale a boiler plant consisting of twelve 1000 HP. Edgemoor Boilers built A. S. M. E. code for 200 lbs.—Foster Superheaters—Taylor Stokers—Diamond Scot Blowers—together with feed water heaters, piping, valves, etc.—three steel stacks 250 feet high by 16 feet in diameter—complete coal and ash handling machinery—used three to six months—subject to your inspection—a bargain.

Roy Brenholts, Trustee,
1015 Outlook Building
Columbus, Ohio.

WATER TUBE
BOILERS

- 4-382 H.P. Stirling. 150 lb
- 1-318 H.P. B. & W. 150 lb.
- 2-400 H.P. B. & W. 150 lb
- 1-350 H.P. B. & W. 150 lb
- 2-400 H.P. Erie City 150 lb.

Also
H. R. T. Marine and Firebox Boilers of all sizes
The Markman Engineering Company
111 West Monroe Street
Chicago, Ill.

Red and Buff Dry Pressed Brick,
Common Building Brick

GEORGIA-CAROLINA BRICK CO.
HOWARD H. STAFFORD, Pres.
AUGUSTA, GA.

Electrical Equipment for Sale

200 d. c. meters. 110 and 220 volt. 1 Westinghouse 50 k. w. generator, 250 volt directly connected to a 75 h. p. Brownell steam engine; also 15 220-volt motors; various sizes, and 15 d. c. fans
Mountain Grove Creamery, Ice & Elec. Co.,
Mountain Grove, Mo.

FOR SALE
RUBBER BELTING

Money-saving prices on new and slightly used Government Stock; all sizes.
I. BLUFORD & CO.
RICHMOND - - VIRGINIA

CHEMICAL MACHINERY

Engineering and Designing
Purchasing and Sales Service
New and Used Machinery
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X-L-All Face Down Block Machine with complete outfit cheap. Also small Hatch Mixer.

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Will pass rigid Underwriter's inspection.

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- 1-Blake 9"x3" Steam Pump. \$150.
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Orange Peel and Clam Shell Buckets
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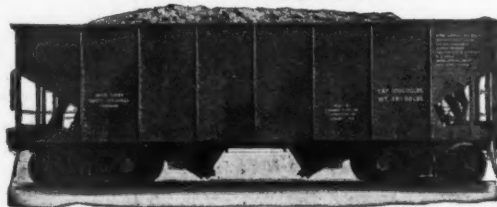
- 2—ten-ton Holt Tractors.
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Above located in North Carolina.
- 1—10-ton Austin Gasoline Road Roller.
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- 20—3-yard, Oliver side dump, wood body 36" Gauge Dump Cars.
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Above located in Chattanooga, Tennessee.

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IMMEDIATE DELIVERY**100,000 POUNDS CAPACITY SELF-CLEARING
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3—100 M lbs. cap. 41 ft. steel underframe
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10 Ton Monarch Steam Road Roller.....1500.00
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American—36 in. ga., 10 x 16 in., 18-ton, four
driver saddle tank—145 lbs. working pressure.
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Lima (Shay) std. ga., 59-ton—three truck geared
12 drivers, 180 lbs. working pressure.
All thoroughly overhauled and ready for im-
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Cars, steel underframes, steel lined
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1—100,000 lb. capacity, all-steel Jordan
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DOUBLE DRUM HOISTING
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With swinging gear attachment.
Made by American Hoist & Derrick Co.
Equipped with magnetic brake.
Capacity:

Pull on single line 6000 lbs.
Speed full load 100 ft. per minute.

Motors furnished with these engines are 220 or
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Prices furnished with or without motor.
Shipment can be made immediately.

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SLACK-LINE EXCAVATOR, 50 H. P. National
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self dumping bucket, A frames, cables, etc. all
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We have for sale one used, rebuilt Merri-
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No. 1. In fine condition. 2000-yd. plant,
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24 x 36 Jaw Crusher

Farrell type 15-B. Rated capacity
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Two Northwestern Concrete Mixers one half sack
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Brown Hoist 15-ton 8-wheel 50 & 70 ft. boom
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Industrial 7½-ton steam

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boom with 25 ft. removable section double
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1—15 ton Industrial, 40 ft. boom bucket drums.

NEW TRACTION CRANES

Full Revolving Road Cranes 7 ton capacity with
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American 6 wheel switcher. Cylinders 18x24-in.
Drivers 44", wheel base 11'6", weight 68 tons.

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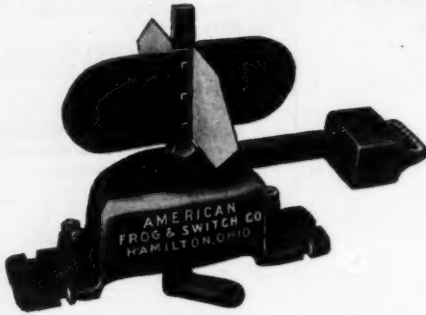
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Let us know your needs. We may have material in stock near you.

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With Angle bars to match all sections.
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2 miles of 40-lb. rail.
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100 tons of 56-lb. rail.
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2000	55 lb.
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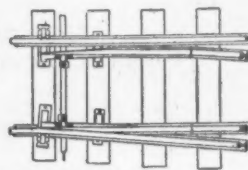
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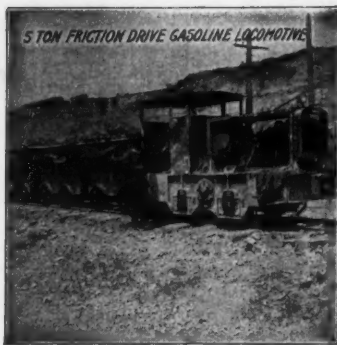
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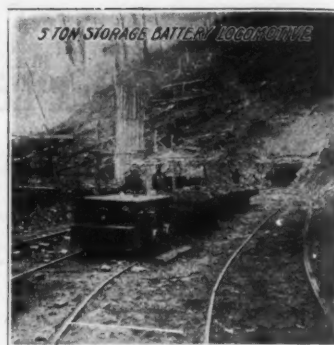
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Literature on Request

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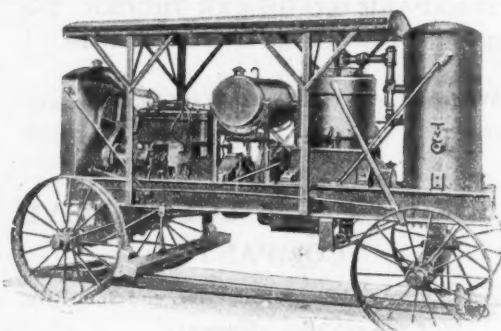
Accidents to locomotives are liable to occur at any time. By keeping on hand an adequate supply of parts, economies will be realized as repairs or replacements can be made at once.

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For drilling rock in road work—
For cutting old pavements—
For digging rock trenches for pipe—

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**SULLIVAN "WK-31" PORTABLE COMPRESSOR
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In this 1921 model, gas-engine driven compressor, reliability, fuel economy and convenience have been combined to give the road contractor, city street department, or highway commissioner independent, day-in-day-out air power satisfaction. 150 cu. ft. capacity; 28 H.P.; 5600 lb. Bulletin 1275-T

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NO headaches!

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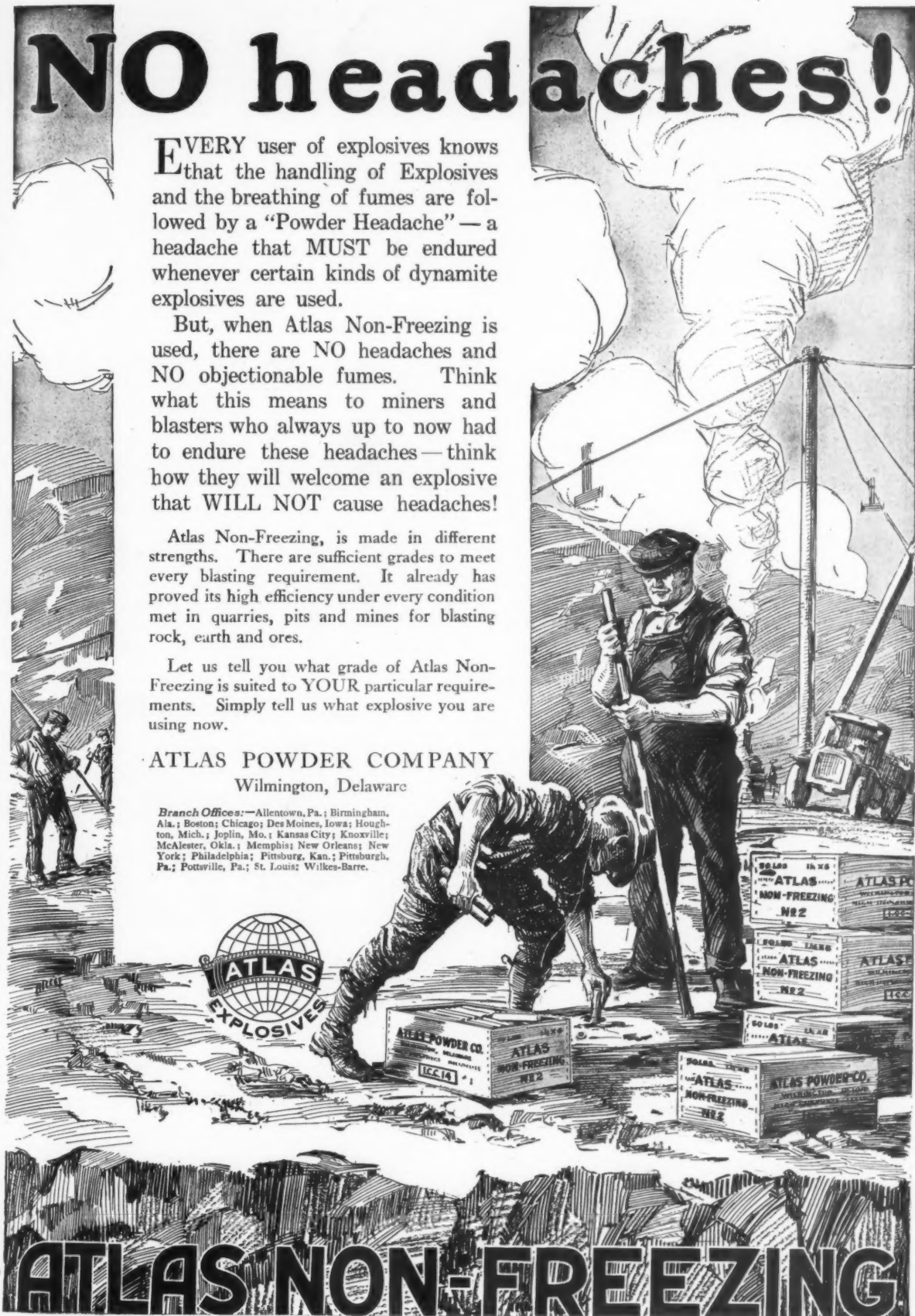
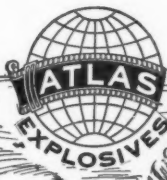
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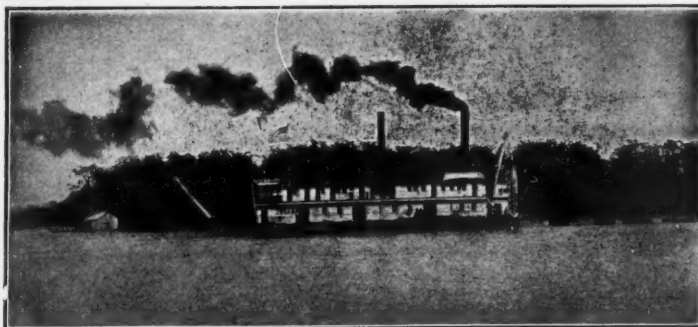
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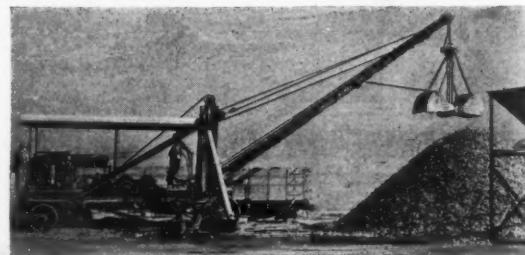


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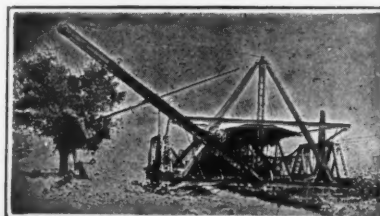
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Attachments— $\frac{3}{4}$ -yd. clam, $\frac{1}{2}$ -yd. dipper, hook, scraper, etc.

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Walking Land Dredges

A two-man dredge. Oil engine operated. Built any width.
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Rex Griplock— Stronger Than Its Link Pins

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The "Certified Malleable" links of Rex Griplock are so strongly locked with each other that they form a powerful chain without the link pins. Then the pins are put in to further fortify the union.

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*Branch Offices and Representatives in Principal Cities
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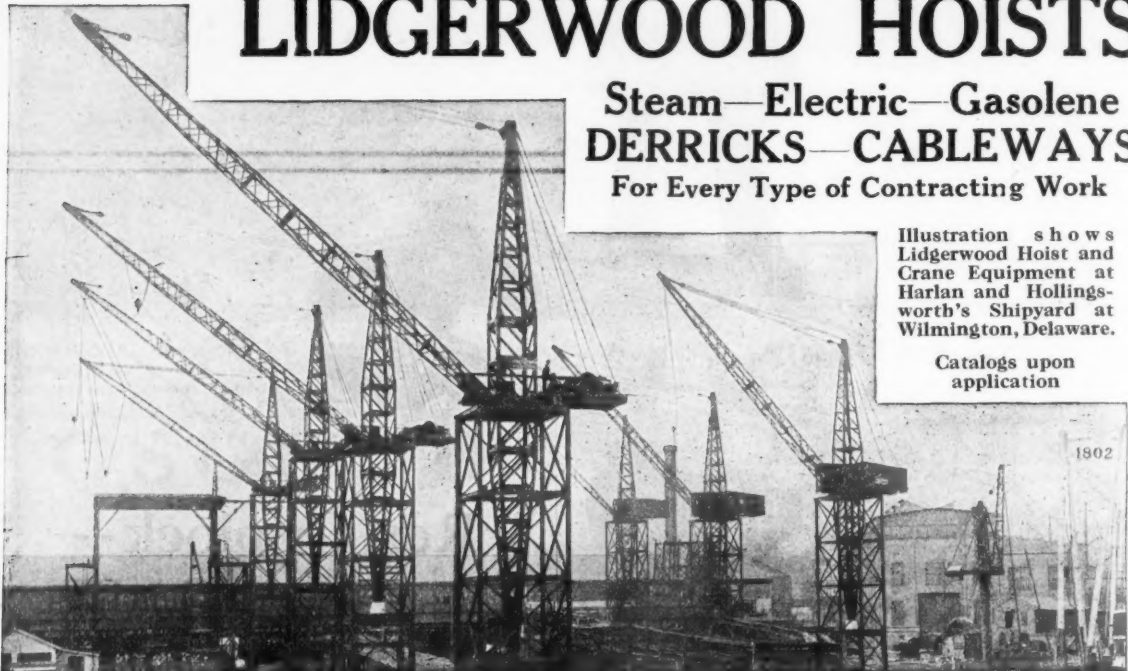
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Steam—Electric—Gasolene
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For Every Type of Contracting Work

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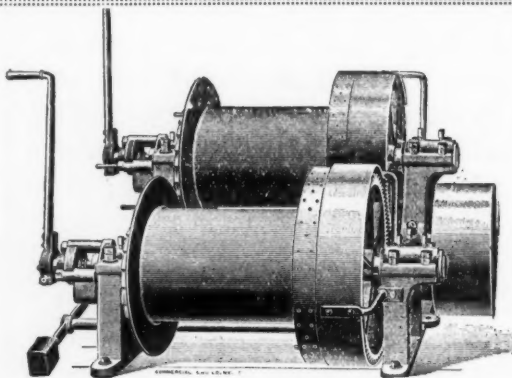
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Established 1869

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Stroudsburg = Quality

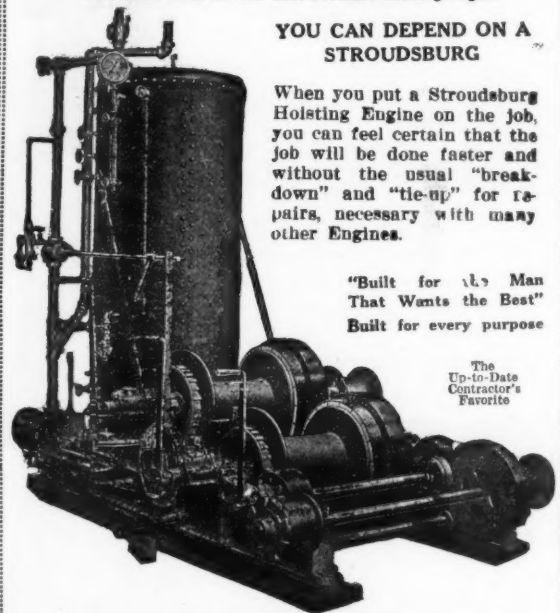
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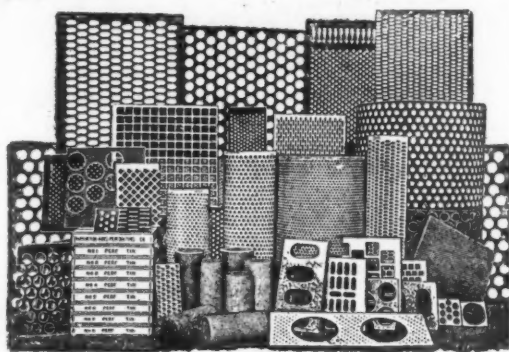
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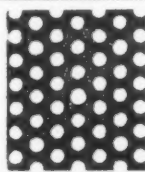
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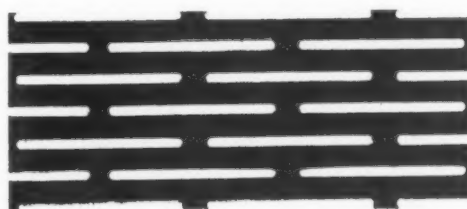
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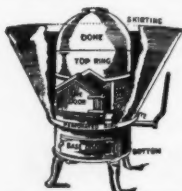
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A portable machine, daily capacity 5 to 7 tons.



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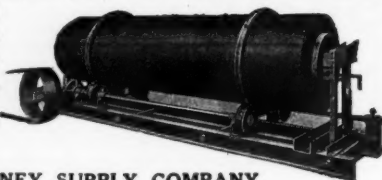
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Crushed and Screened Slag for Road Paving and
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In Car, Scow and Barge Lots

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The Canal-Winchester road, Franklin county, Ohio, was surfaced with Kentucky Rock Asphalt in 1920. The old road was water-bound macadam, surface-treated with tar. Numerous pot holes in the old surface were brought to grade and a light paint coat applied to the entire surface. The Kentucky Rock Asphalt was then spread cold, raked to proper depth and rolled. The road was immediately opened to traffic.

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Kentucky Rock Asphalt is a natural product—a perfect asphalt mix. It comes ready to lay cold on any base adequate to carry the traffic. No expensive mixing and heating equipment is required. No high priced expert workmen are needed. The finished surface is smooth, noiseless, dustless and resilient. Kentucky Rock Asphalt does not lose its life. It does not crack, roll, buckle nor bleed.

Our engineering department will be pleased to take up your local problems with you. Write for booklet B.

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INCORPORATED

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The following is very much to the point as well as an authoritative statement:

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Warrenite-Bitulithic

is the acme of road construction in all of the following essential features:

1. Pliable, plastic, malleable, resilient surface directly in contact with motor tires.

For this reason it offers:

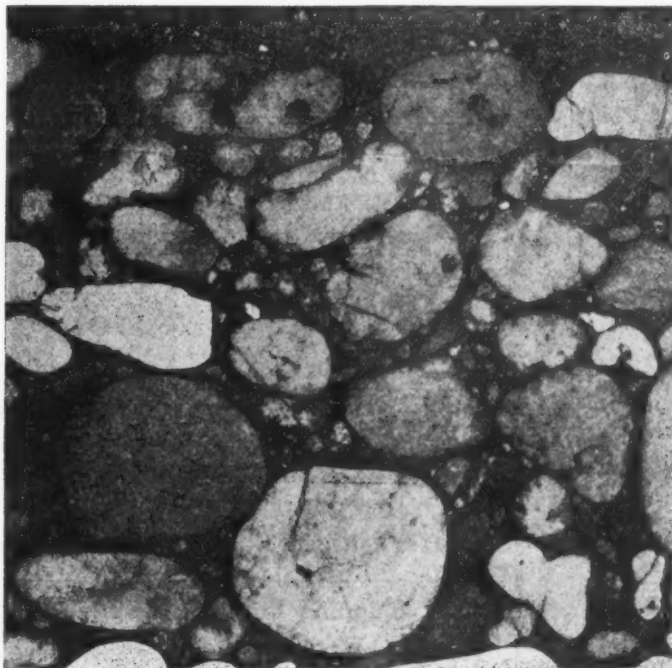
2. The least wear to (a) Auto tires. (b) Road Surface;
3. Stability of wearing surface without rigidity.
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THEREFORE THE MOST COMFORTABLE, DURABLE AND ECONOMICAL

The following verticle sawed cross section of

Warrenite-Bitulithic on Dense Bituminous Concrete Base

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1
Extremely plastic rich water-proof malleable rubber like Warrenite-Bitulithic fine surfacing mixture blended into

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Dense, stable, resilient Warrenite-Bitulithic coarse, aggregate surface which may be either gravel or crushed stone aggregate.

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Dense, stable resilient Bituminous Base thoroughly united to the Warrenite-Bitulithic surface. **No line of cleavage in any part of the construction.**

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PERMANENT

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What you want is a hard-surfaced road, with little cost for maintenance—a road that can be traveled in rain or snow, summer and winter. You want a **PERMANENT** road—that means **CONCRETE**!

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Is made under the direct supervision of chemists and engineers of thorough experience.

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It is, therefore, a scientifically-made product that is always

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Standard Specifications

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And it has never failed to pass all required standard specifications.

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also a full line of steel and malleable buckets, chain and sprockets.

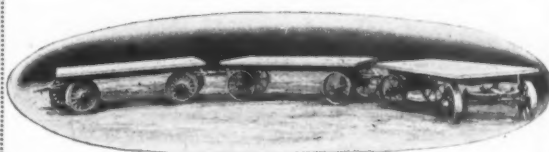
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A full line of contractors supplies and equipment

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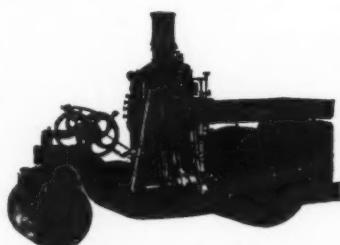
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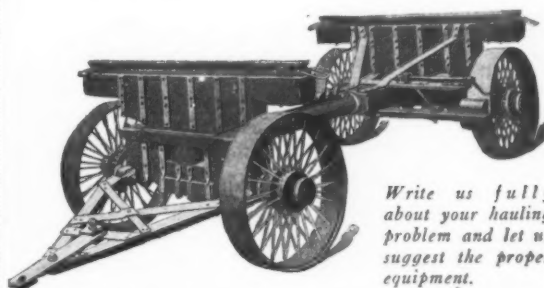


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Tandem
Steam
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for
**STRENGTH
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ECONOMY of OPERATION and LONG LIFE

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ERIE, PENNA., U. S. A.

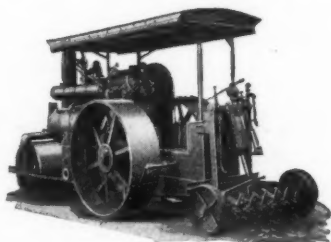


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*are built stronger
than the most se-
vere strain encoun-
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Cast steel blade arms, cast steel back bowl braces, solid connecting rods, steel flat link chains with steel pin bolted links, bronze bushings, broad cutting shoes with removable steel teeth make the Haiss *the strongest bucket you can buy.*

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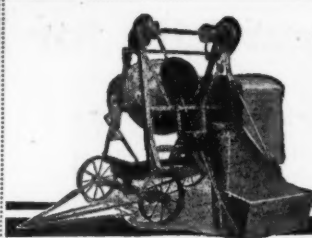
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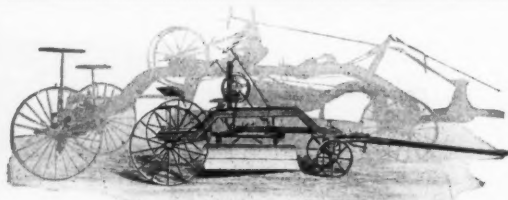
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Write today for full facts on this complete line.

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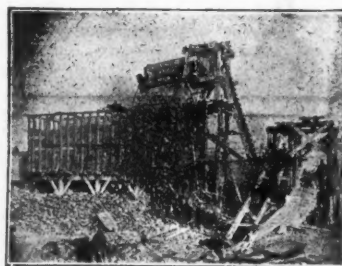
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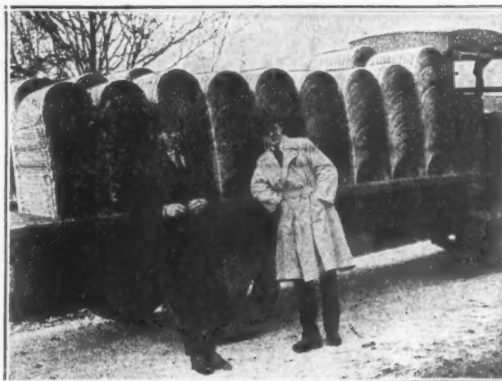
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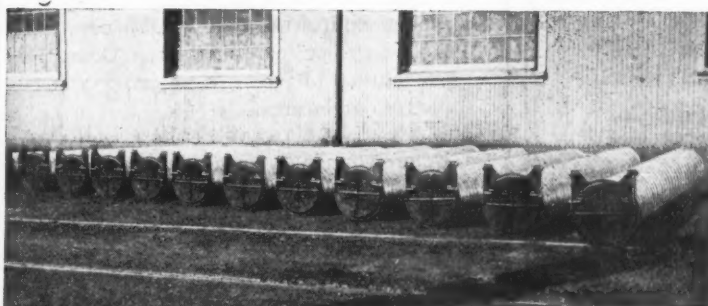


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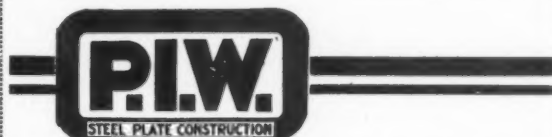
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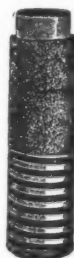
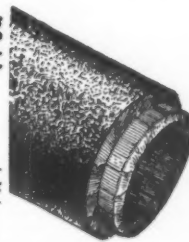
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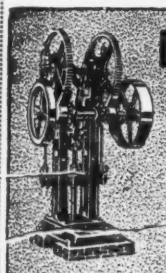
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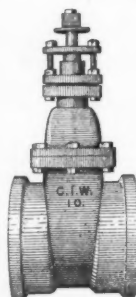
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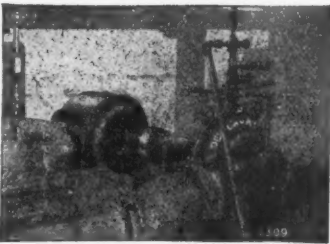
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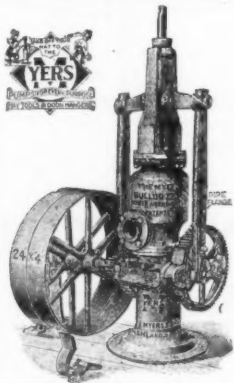
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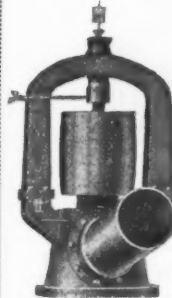
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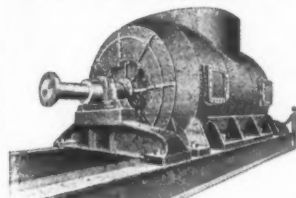
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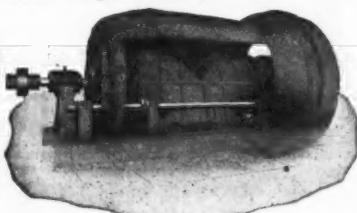
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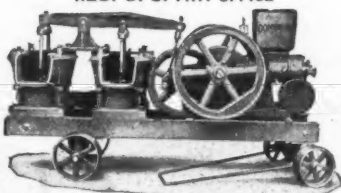
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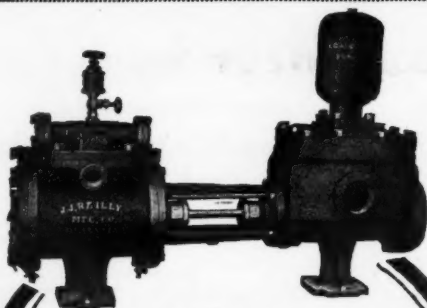
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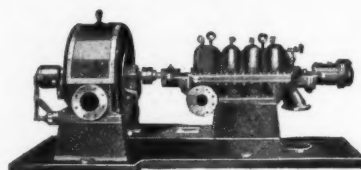
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Richards-Wilcox Mfg. Co., St. Louis, Mo.
Yale & Towne Mfg. Co., Stamford, Conn.
- Wire Rope.**
American Steel & Wire Co., Chicago.
Broderick & Bascom Rope Co., St. Louis, Caldwell & Son Co., H. W., Chicago.
- TRANSFORMERS.**
Crocker-Wheeler Co., Ampere, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.
- TRANSMISSION BEARINGS AND HANGERS.**
Standard Pressed Steel Co., Jenkintown, Pa.
Transmission Ball Bearing Co., Buffalo, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.
- TREADS.** (Ladder and Stairs Non-Slip.)
Irving Iron Wks. Co., Long Island City, N. Y.
- TRENCH MACHINERY.**
Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.
Huckeye Traction Ditcher Co., Findlay, O.
- TRIM.** (Metal)
Dahlstrom Metallic Door Co., Jamestown, N. Y.
- TROLLEYS.** (Overhead Tramway.)
Reading Chain & Block Co., Reading, Pa.
- TRUCKS.**
Drykiln.
Moore Dry Kiln Co., Jacksonville, Fla.
Platform, Freight, Mill, Factory, Etc.
Edwards Mfg. Co., The, Cincinnati, O.
- TRUST COMPANIES.**
Maryland Trust Co., Baltimore, Md.
- TUBE WELL STRAINERS.**
Cook, A. D., Lawrenceburg, Ind.
- TUBING.**
Metal.
Boiler Tube Co., of America, Pittsburgh, Pa.
Griffith, James F., Philadelphia, Pa.
Miller Metals Co., Port Huron, Mich.
Ward's Sons Co., Edger T., Boston, Mass.
Wheeling Steel Products Co., Wheeling, W. Va.
Seamless Steel.
National Tube Co., Pittsburgh, Pa.
- TURBINES.**
Hydraulic.
Leffel & Co., James, Springfield, O.
Smith Co., S. Morgan, York, Pa.
Steam.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
De LaVal Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse El. & Mfg. Co., E. Pitts., W. Va.
- TURNABLES.**
American Bridge Co., New York, N. Y.
Virginia Bridge & Iron Co., Roanoke, Va.
- TWINE.**
Plymouth Cordage Co., N. Plymouth, Mass.
Whitlock Cordage Co., New York, N. Y.
- UNIONS.**
Dart Mfg. Co., E. M., Providence, R. I.
- VALVES.**
Bethlehem Steel Co., Bethlehem, Pa.
Bourbon Copper & Brass Works Co., Cincinnati, O.
Colonial Supply Co., Pittsburgh, Pa.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Frick Co., Waynesboro, Pa.
Jenkins Bros., New York, N. Y.
Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Powell Co., The, Williams, Cincinnati, O.
Power Piping Co., Pittsburgh, Pa.
Riverson & Son, Jos. T., St. Louis and New York.
Vogt Mch. Co., Inc., Henry, Louisville, Ky.
Westinghouse Traction Brake Co., Wilmerding, Pa.
Wood Drill Works, Paterson, N. J.
- Acid-proof.**
Lunkenheimer Co., The, Cincinnati, O.
- Gas Producing.**
Morgan Construction Co., Worcester, Mass.
- Gas Reversing.**
Morgan Construction Co., Worcester, Mass.
- Gate.**
Ludlow Valve Mfg. Co., Troy, N. Y.
- VARIABLE-SPEED TRANSMISSION.**
Reeves Pulley Co., Columbus, Ind.
- VARNISH.**
Wadsworth, Howland & Co., Inc., Boston, Mass.
- VENEER CUTTING MACHINES.**
Titus, E. E., Petersburg, Va.
- VENTILATING APPARATUS.** (Engineers' and Contractors'.)
Allen Engr. & Mfg. Co., Savannah, Ga.
Buckeye Blower Co., Columbus, O.
Buffalo Forge Co., Buffalo, N. Y.
- VENTILATORS.** (Roof.)
Canton Art Metal Co., Canton, O.
Edwards Mfg. Co., The, Cincinnati, O.
Lenderking, Philip H., Baltimore, Md.
Schoedinger, F. O., Columbus, O.
- VICES.**
Western Tool & Mfg. Co., Springfield, O.
- WAGON LOADERS.**
Bonney Supply Co., Inc., Rochester, N. Y.
- Walls.**
Hais Mfg. Co., Geo., New York, N. Y.
Link-Belt Co., Philadelphia, Pa.
Portable Machinery Co., Passaic, N. J.
- WALL PLUGS.** (Galvanized.)
Van Dorn Iron Works Co., Cleveland, O.
- WARDROBES.** (Rolling, Disappearing Door.)
Wilson Corporation, The J. G., New York.
- WASHERS.**
Copper, Iron, Brass, Aluminum.
Stimpson Co., Edwin B., Brooklyn, N. Y.
- WASHING MACHINERY.**
Ore and Phosphate.
Bailey-Lebby Co., Charleston, S. C.
Sand and Gravel.
Bonney Supply Co., Inc., Rochester, N. Y.
Link-Belt Co., Philadelphia, Pa.
- WATCHMAN'S PORTABLE CLOCKS.**
Chicago Watchman's Clock Works, Chicago, Ill.
Eco Clock Co., Atlanta, Ga.
Eco Clock Co., Boston, Mass.
Newman Clock Co., New York, N. Y.
- WATERPROOFING.** (For Brick, Concrete, Granite, etc.)
Master Builders Co., The, Cleveland, O.
Sonneborn Sons, Inc., L., New York, N. Y.
Texas Co., The, New York, N. Y.
Wadsworth, Howland & Co., Inc., Boston, Mass.
- WATER PURIFICATION.**
Permutt Co., New York, N. Y.
Roberts Filter Mfg. Co., Darby, Pa.
Seale & Sons Co., Wm. B., Pittsburgh, Pa.
- WATER-SOFTENING APPARATUS.** (Purifying.)
American Water Softener Co., Phila., Pa.
Borromite Company, Chicago, Ill.
International Filter Co., Chicago, Ill.
Permutt Co., New York, N. Y.
Pittsburgh Filter & Engr. Co., Pittsburgh, Pa.
Seale & Sons Co., Wm. B., Pittsburgh, Pa.
- WATER-WORKS, SUPPLIES, APPLIANCES.**
American C. I. Pipe Co., Birmingham, Ala.
Bourbon Copper & Brass Works Co., Cincinnati, O.
Caldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Wks., Chattanooga, Tenn.
Cook, A. D., Lawrenceburg, Ind.
Glomorgan Pipe & Fdry. Co., Lynchburg, Va.
Hamburg Boiler Works, Hamburg, Berks County, Pa.
Michigan Pipe Co., Bay City, Mich.
National Water Supply Co., Birmingham, Ala.
Pacific Pipe & Tank Co., San Francisco, Cal.
U. S. Cast Iron Pipe & Fdry Co., Burlington, N. J.
Wood & Co., B. D., Philadelphia, Pa.
- WAX.** (For Belts.)
Cantol Wax Co., Bloomington, Ind.
- WELDING.**
Blaw-Knox Co., Pittsburgh, Pa.
Oxy-Acetylene.
Sanborn & Co., W. T., Birmingham, Ala.
- WELDING APPARATUS.**
Electric Arc.
General Electric Co., Schenectady, N. Y.
Oxy-Acetylene.
Oxweld Acetylene Co., Newark, N. J.
Prest-O-Lite Co., The, New York, N. Y.
Sanborn & Co., W. T., Birmingham, Ala.
- WELDING SUPPLIES.** (Oxy-Acetylene.)
Prest-O-Lite Co., The, New York, N. Y.
- WELL CONTRACTORS.** (Oil, Artesian, etc.)
Cook, A. D., Lawrenceburg, Ind.
Hughes Specialty Well Drilling Co., Charleston, S. C.
Sydnor Pump & Well Co., Richmond, Va.
Va. Machinery & Well Co., Richmond, Va.
- WELL TOOLS AND SUPPLIES.**
Cook, A. D., Lawrenceburg, Ind.
Keystone Driller Co., Beaver Falls, Pa.
- WHEELS AND AXLES.**
Electric Wheel Co., Quincy, Ill.
- WHEEL PRESSES.**
Caldwell & Co., E. R., Bradford, Pa.
- WINCHES.**
Haddfield-Penfield Steel Co., Bucyrus, O.
Mundy Hoisting Engine Co., J. B., Newark, N. J.
- WINDLASSES.**
Flory Mfg. Co., S., Bangor, Pa.
Haddfield-Penfield Steel Co., Bucyrus, O.
Mundy Hoisting Engine Co., J. B., Newark, N. J.
- WINDOW FRAMES AND SASH.** (Fireproofing.)
Lupton's Sons Co., David, Phila., Pa.
Tuscon Steel Co., Youngstown, O.
- WINDOW GUARDS.**
Dow Co., The, Louisville, Ky.
Stewart Iron Wks., Co., Inc., Cincinnati, O.
Lupton's Sons Co., David, Phila., Pa.
- WIRE.**
All Kinds.
Ryerson & Son, Jos. T., St. Louis and New York.
Barbed Wire, Etc.
American Steel & Wire Co., Chicago, Ill.
Youngstown Sheet & Tube Co., Youngstown, O.
Fence.
American Fence Construction Co., N. Y.
Cyclone Fence Co., Waukegan, Ill.
Flat and Round.
Roebbling's Sons Co., John A., Trenton, N. J.
American Steel & Wire Co., Chicago, Ill.
Gulf States Steel Co., Birmingham, Ala.
Insulated.
Atlantic Electric Co., Norfolk, Va.
Telephone, Telegraph.
American Steel & Wire Co., Chicago, Ill.
- WIRE CLOTH.** (Iron, Steel, Brass, etc.)
Caldwell & Son Co., H. W., Chicago, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.
New Jersey Wire Cloth Co., Trenton, N. J.
Wickwire-Spencer Steel Corp., Worcester, Mass.
- WIRE GOODS.**
American Fence Construction Co., New York, N. Y.
Cyclone Fence Co., Waukegan, Ill.
Dufur & Co., Baltimore, Md.
Dufur, Baggett & Co., Baltimore, Md.
New Jersey Wire Fence Co., Trenton, N. J.
Stimpson Co., Edwin B., Brooklyn, N. Y.
- WIRE NETTING.**
Ludlow-Saylor Wire Co., St. Louis, Mo.
New Jersey Wire Fence Co., Trenton, N. J.
Wickwire-Spencer Steel Corp., Worcester, Mass.
- WIRE ROPE CLIPS.**
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
- WIRE STRAIGHTENERS.**
Electric Welding Co., Pittsburgh, Pa.
- WIRING DEVICES.**
Atlantic Electric Co., Inc., Norfolk, Va.
- WOOD PIPE.** (For Water, etc.)
Michigan Pipe Co., Bay City, Mich.
Pacific Tank & Pipe Co., San Francisco, Cal.
Wyckoff & Son Co., A. Elmsira, N. Y.
- WOOD PRESERVATIVE.**
Harrett & Co., New York, N. Y.
Protexol Corp., New York, N. Y.
S. P. F. Wood Preserving Co., Boston, Mass.
- WOODWORKING MACHINERY.**
Lane Mfg. Co., Montpelier, Vt.
- WRENCH MANUFACTURERS.**
Lakeside Forge Co., Erie, Pa.
- YACHT LIGHTING OUTFITS AND FIXTURES.**
Southland Steamship Co., Savannah, Ga.
- YARN.** (Tanned Steel.)
Plymouth Cordage Co., W. Plymouth, Mass.
Whitlock Cordage Co., New York, N. Y.
- ZINC.**
Corrugated Bar.
V-Crimp, Flat Sheets.
Amer. Zinc Products Co., Greenfield, Ind.

Alphabetical Index of Advertisements

A	Abel & Co., Chas. T. 35	Abendroth & Root Mfg. Co. 6	Acme Chimney Co. 42	Air-Tight Steel Tank Co. 6	Ajax-Elihu Coal Co. 22	Alabama Company 111	Albion Kasein Co. 45	Albright & Mebus 25	Allegheny Steel Co. 45	Allen Engineering Co. 45	Allen Eng. & Mfg. Co. 10	Allis-Chalmers Mfg. Co. 10	Allison, Walter A. 48	Alpha Photo Eng. Co. 11	American Appraisal Co. 50	American Bridge Co. 128	American Cast Iron Pipe Co. 128	American Casting Co. 128	American Cement Machine Co., Inc. 128	American Cement Tile Mfg. Co. 128	American Chain Co., Inc. 128	American Cresote Works, Inc. 32	American Elevator & Mch. Co. 31	American Enameled Brick & Tile Co. 28	American Fence Construction Co. 112	American Frog & Switch Co. 121	American Limestone Co. 121	American Pattern Wks. Co. 45	American Process Co. 45	American Pulley Co. 45	American Rolling Mill Co. 32	American Sales Co. 20	Amer. Sheet & Tin Plate Co. 105	American Ship Building Co. 15	American Spiral Pipe Wks. 15	American Steel & Wire Co. 15	American Telephone & Telegraph Co. 11	Amer. Water Softener Co. 37	American Zinc Products Co. 37	Anderson Co., V. D. 40	Anderson-Hunter Con. Co. 104	Appelbush Marble Co. 104	Archer & Co., E. T. 12	Arctic Ice Machine Co. 12	Armo Culvert & Flume Mfrs. Assn. 127	Armstrong & Co., Archer 110	Armstrong Mfg. Co. 9	Arnold Co., Victor H. 97	Arundel Corporation 121	Ashtland Fire Brick Co. 10	Atkins & Co., E. C. 10	Atlanta Bolt & Steel Products Co. 29	Atlanta Terra Cotta Co. 29	Atlanta Elec. Co. 12	Atlanta, Gulf & Pacific Co. 116	Atlas Portland Cement Co. 115	Atlas Powder Co. 115	Austin Mfg. Co. 126	Austin-Western Road Mch. Co. 126	Avram & Co., Inc., M. H. 49	B	Babcock & Wilcox Co. 6	Baber, Henry H. 113	Bacon & Sons, A. S. 34	Bailey-Lebby Co. 11	Baker Ice Machine Co., Inc. 12	Baker Mfg. Co. 12	Baldwin Locomotive Works 14	Ball Engine Co. 127	Baltimore Belt Co. 127	Baltimore Build's Exchange Bank of Alabama, The 48	Banks & Craig 48	Bannon Pipe Co. 130	Barber Asphalt Paving Co. 130	Barnes Mfg. Co. 54	Barrett Company 104	Basic, Va. 104	Bauer Bros. Co. 116	Bay City Dredge Works 116	Belmont Iron Works 25	Bender Iron & Supply Co. 8	Benedict, M. C. 50	Benjamin Equip. Co., Harry 111	Berger Mfg. Co. of Texas 4	Berry Bros. 4	Bessemer Gas Engine Co. 4	Bethlehem Steel Co. 22	Big Six Installing Service Co. 48	Biggs Engineering Co., W.E. 49	Billingsley, James W. 49	Binney & Smith 15	Binswanger & Co. 36	Birmingham Clay Products Co. 30	Birmingham Realty Co. 104	Birmingham Rail & Loco. Co. 113	Birmingham Slag Co. 121	Black & Co. 121	Black & Veatch 48	Black, McKenney & Stewart 50	Blaw-Knox Co. 14	Bliss Co., E. W. 104	Bluford & Co., I. 104	Blystone Mfg. Co. 6	Boiler Tube Co. of America 6	Bonney Supply Co. 120	Borne, Serymer Co. 120	Borromite Co., The 120	Bourbon Copper & Brass Works Co. 130	Box & Co., Inc., Alfred 17	Boxley & Co., W. W. 121	Boyer, Baum & Co. 50	Brenholts, Roy 109	Bridgell Co., Inc., W. C. 112	Brier Hill Steel Co. 21	Broderick & Bascom Rope Co. 54	Brooks Supply Co. 109	Buchanan Co., Inc., G. G. 41	Buckeye Blower Co. 4	Buckeye Machine Co. 4	Buckeye Traction Ditcher 92	Bucyrus Co. 120	Buffalo Forge Co. 120	Buffalo Springfield Roller Co. 125	Burrett, W. C. 109	Busch-Sulzer Bros. Diesel Engine Co. 116	Byers Mch. Co. 116	Byllesby Eng. & Management Corp. 49	C	Cabot, Inc., Samuel 35	Caldwell & Co., E. R. 44	Caldwell Co., Inc., W. E. 44	Caldwell & Son Co., H. W. 4	Calhoun Mch. Exchange 110	Cambria Clay Products Co. 10	Cambria Steel Co. 10	Camp & Associates, E. V. 51	Camp, W. H. 40	Cannellon Sewer Pipe Co. 10	Cantol Wax Co. 10	Canton Art. Metal Co. 10	Canton Culvert & Silo Co. 31	Capital Lift & Mfg. Co., The 31	Carborundum Co. 40	Cardwell Machine Co., The 40	Carey Co., Thos. F. 110	Carlyle-Labold Co. 30	Carolina, Clinchfield & Ohio Ry. 48	Carolina Engineering Co. 48	Carolina Portland Cement Co. 32	Carrell & Co., W. A. 108	Carter, Ralph B. 132	Carthage Marble & White Lime Co. 30	Carver, Fred S. 48	Cary Mfg. Co. 19	Cary Springs Works 12	Castle & Wilson 108	Central Coal & Coke Co. 34	Central Fdry. Co., The 129	Central of Georgia Railway 103	Central Pipe & Sup. Co. 109	Chain Belt Co. 117	Chamberlain & Co., Law 97	Champion Bridge Co. 24	Charleston Dry Dock & Machine Co. 6	Charleston Industrial Corp. 2	Charlotte Elec. Repair Co. 13	Chattanooga Armature Wks Co. 42	Chattanooga Boiler & Tank Co. 42	Chattanooga Paint Co. 30	Chattanooga Road Mch. Co. 127	Chattanooga Sewer Pipe Works 127	Cherokee Coal & Coke Co. 9	Chesapeake Belting Co. 16	Chesapeake Iron Works 17	Chicago Bridge & Iron Wks Co. 42	Chicago Pneumatic Tool Co. 4	Chicago Watchman's Clock Works 121	Christie Co., L. R. 44	Church & Dwight Co. 36	Cincinnati Fly Screen Co. 49	Cincinnati Frog & Switch Co. 13	Cincinnati Iron & Steel Co. 113	Clark & Krebs 48	Classified Opportunities 101-102	Cleveland Belting & Mch. Co. 110	Clifford-Bell Petr'm Co., Inc. 16	Climax Mfg. Co. 42	Clinchfield Portland Cement Co. 124	Colan & Sons, Louis 112	Coldwell-Wilcox Co. 127	Cole Mfg. Co. 35	Cole Mfg. Co., R. D. 42	Coleman Shoemaker Co. 108	Collins Granite Co. 121	Colonial Charter Co. 7	Colonial Supply Co. 132	Cylissus Co., Inc. 111	Columbia Granite & Dredging Co. 104	Columbian Iron Works Co. 130	Columbian Rope Co. 125	Columbus Conveyor Co. 125	Columbus Forge & Iron Co. 40	Columbus-McKinnon Chain Co., The 120	Conard & Buzby 48	Concrete Steel Bridge Co. 50	Concrete Steel Co. 20	Concrete Steel Engineering Co. 48	Construction Machinery Co. 13	Continental Fibre Co. 13	Continental Gin Co. 40	Continental Machinery Co. 12	Continental Pipe Mfg. Co. 25	Converse Bridge & Steel Co. 130	Cook, A. D. 49	Cook's Sons, Inc., Adam 121	Cook & Laurie Gravel Co. 121	Cooley & Marvin 48	Cooper & Co., Hugh L. 48	Cooper Hewitt Elec. Co. 48	Cordele Sash, Door & Lbr. Co. 32	Corporation, The 32	Cortright Metal Roofing Co. 37	Courier-Journal Job Printing Co. 15	Covington Mch. Co., Inc. 15	Craig Engineering Co., Inc. 9	Crescent Materials Co. 35	Cresson-Morris Co. 18	Crocker-Wheeler Co. 13	Crompton & Knowles Loom Works 38	Crucible Steel Casting Co. 38	Cummers & Son Co., F. D. 121	Cummings Machine Co. 114	Curtis Bay Copper & Iron Co. 24	Curtis-Willis Co. 104	Cussons, May & Co. 96	Custodis Chimney Construction Co., Alphonse 36	Cutler Mail Chute Co. 36	Cyclone Fence Co. 48	D	Dahlstrom Metallic Door Co. 9	Dake Engine Co. 9	Dart Mfg. Co., E. M. 106	Davis, J. F. 44	Davis & Son, G. M. 44	Day & Zimmerman, Inc. 49	Daytime Furniture Mfg. Co. 31	Dayton-Dowd Co. 103	Daytona, Fla., Chamber of Commerce 103	DeFranceschi, A. 111	De Laval Steam Turbine Co. 131	De La Vergne Mch. Co. 4	Delaware Registration Trust Co. 42	Delta Equipment Co. 126	Deverell, H. 26	Dexter Metal Mfg. Co. 104	Diamond Coal Co. 26	Diamond State Fibre Co. 25	Dietrich Bros. 38	Dixie Brass & Foundry Co. 48	Dixie Engineering & Insulating Co. 124	Dixon Crucible Co., Jos. 7	Domestic Engine & Pump Co. 151	Dominion Metal Prod. Corp. 107	Dorman Co., J. F. W. 107	Doubleday-Hill Elec. Co. 132	Dougherty Co., M. J. 132	Downingtown Iron Works 24	Dow & Smith 48	Dow Co. The 26-54	Draper Corporation 54	Draper, E. S. 50	Drouve Co., The G. 30	Druid Oak Belting Co. 17	Dufur, Baggett & Co. 26	Duncan, James H. 26	Dunning & Boschert Press Co. 119	Du Pont de Nemours, E. I. 119	E	Eagle Manufacturing Co. 132	Earle Gear & Machine Co. 111	East Iron & Machine Co. 111	Eavenson & Associates, Howard N. 48	Eco Clock Co. 121	Edwards Mfg. Co. 37	Electric Bond & Share Co. 97	Electric Controller & Mfg. Co. 20	Electric Welding Co. 125	Electric Wheel Co. 97	Elkins & Co., M. W. 97	Ellicott Machine Corp. 50	Ellis, Frank L. 50	Emerson Pump & Valve Co. 132	Empire Refractories, Inc. 119	Erdle Performing Co. 119	Erie City Iron Works 125	Erie Machine Shops 125	Erie Pump & Engine Works 17	Erie Steel Construction Co. 17	Evans & Co., Victor J. 111	Exch'g Sawmills Sales Co. 111	F	Fairbanks, Morse & Co. 25	Falcon Steel Co. 25	Farris Bridge Co. 25	Fate-Root-Heath Co. 10	Fawcett Machine Co. 50	Ferguson Co., J. B. 50	Ferguson Co., The H. K. 30	Fernholz Brick Mch. Co. 30	Fidelity & Deposit Co. of Md. 96	First Nat'l Bank of Birmingham, Ala. 96	First Nat. Bank, Richmond, Va. 120	Fleet-McGinley Co. 120	Florence Gas Co. 104	Florida Metal Products Co. 119	Flory Mfg. Co., S. 119	Foos Gas Engine Co. 49	Ford, Bacon & Davis 50	Fordyce, John R. 50	Foundation Companies 44	Fouts Co., The C. G. 112	Frank, M. K. 112	Freeland, Roberts & Co. 124	Freeport Gas Co. 30	Freese & Co., E. M. 30	Frick Co. 48	Freehling & Robertson 48	Fulton Iron Works 5	Fuston & Van Valkenburgh 126	G	Gannett, Seelye & Fleming 48	Gardner Governor Co. 48	Gardner & Howe 48	Gas Pump & Burner Mfg. Co. 9	General Electric Co. 103	General Engineering & Construction Co. 103	General Fireproofing Co. 103	General Purchasing Agts. 96	George & Co., Inc., E. 113	Georgia Car & Loco. Co. 109	Georgia-Carolina Brick Co. 109	Glamorgan Pipe & Fdry. Co. 128	Glander & Co. 109	Goldens Fdry. & Mch. Co. 18	Gordon Metal Co. 36	Grainger & Co. 132	Great Southern Lumber Co. 109	Greene Electric Furnace Co. 12	Green Fire Brick Co., A. P. 10	Greensboro Supply Co. 107	Greenstone Products Co., Inc. 28	Gregory Electric Co. 107	Griffith, Jas. F. 107	Grinnell Co. 32	Gulport Crescoting Co. 32	Gulf Refining Co. 16	Gulf States Portland Cement Co. 16	H	Hadfield-Penfield Steel Co. 30	Hais Mfg. Co., Geo. 126	Hamburg Boiler Works 42	Hammond Byrd Iron Co. 328	Hammond Heating Co. 36	Hampton Roads Equipment Co. 125	Hanchett Bond Co. 119	Harrington & King Performing Co. 119	Harris Bros. Co. 107	Hartley Boiler Works 6	Hauser-Stander Tank Co. 44	Hawley, Chas. B. 48	Hayward Co. 116	Heine Boiler Co. 6	Heineken, W. F. 110	Heltzel Steel Form & Iron Co. 93	Henderson Iron Works & Supply Co., W. K. 38-45	Hendrick Mfg. Co. 119	Hercules Powder Co. 45	Hersey Mfg. Co. 45	High Point Machine Works 36	Hill & Griffith Co. 36	Hires Turner Glass Co. 110	Hitner's Sons Co., Henry A. 110	Hochstadter Laboratories 48	Hoisting Engine Sales Co. 111	Hoisting Machinery Co. 111	Hood Brick Co., B. Mifflin 30	Houston Railway Car Co. 111	Houston, Stanwood & Gamble Co. 4	Howard Refractories Co. 10	Hughes Specialty Well Drilling Co. 50	Hunt & Co., Robert W. 48	Hunt Eng. Co. 48	Huntington & Guerry, Inc. 48	Hyde & Co. 112	I	Imperial Refining Co. 16	India Alkali Works 28	Indiana Limestone Quarryman's Asso. 28	Industrial Lumber Co. 25	Ingersoll-Rand Co. 25	International Clay Machinery Co. 50	International Conveyor Corp. 50	International Filter Co. 24	International Steel & Iron Co. 24	Ironton Boiler Works 25	Irving Iron Works 5	J	Jaeger Mach. Co. 126	James Supply Co. 126	Jemison Real Estate & Ins. Co. 97	Jenkins Bros. 97	Jenkins Petroleum Co. 10	Jointless Fire Brick Co. 96	Jones & Baker 42	Jones & Laughlin Steel Co. 111	Jones Co., Inc., Fred R. 108	Jones Mehry Corp. 108	Joseph Iron Co., The Isaac 112	K	Karasik, Friedman & Co., Inc. 31	K. C. Elevator Mfg. Co. 31	Kelly-Springfield Tire Co. 109	Kemp Machinery Co. 109	Kentucky Rock Asphalt Co. 122	Keystone Driller Co. 139	Kilby Frog & Switch Co. 113	Kimball Bros. 41	King Co., Inc., F. E. 45
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King, Philip T. 111
Kingsport Brick Corp. 28
Kinnear Mfg. Co. 54
Kinney Mfg. Co. 125
Kirby-Bonner, Lumber Co.
Kirkpatrick Lumber & Timber Co. 34
Klauder, Louis T. 48
Klein & Co., Nathan. 108
Klyce, B. H. 48
Koehring Machine Co. 1
Kries & Sons, Henry A. 109

L

Laclede Steel Co. 24
Lakeside Forge Co. 38
Lakewood Engineering Co., The. 91
Lambert Co., H. T. 112
Lancaster Iron Works, Inc. 42
Lane Equip. Co., T. J. 111
Lane Mfg. Co. 48
Lee, Wm. S. 48
Leffel & Co., James. 131
Lehman, Chas. T. 104
Lenderking, Philip H. 27
Levis & Co., Henry. 112
Liberty Blow Pipe Works. 45
Lide, Martin J. 48
Lidgerwood Mfg. Co. 118
Light Railway Equipment Co. 113
Linde Air Products Co. 1
Liak Belt Co. 1
Liquid Despatch Line. 20
Lockett & Co., A. M. 20
Lockwood, Greene & Co. 1
Lombard Iron Works & Supply Co. 11
Long Bell Lumber Co. 33
Long Co., The M. A. 51
Lookout Boiler & Mfg. Co. 42
Lova, A. G. 111
Ludlow Engineers, The. 26
Ludlow-Saylor Wire Co. 112
Ludlow Valve Mfg. Co. 130
Ludowici-Celadon Co. 36
Lunkenheimer Co. 7
Lupton's Sons Co., David. 112
Luria Bros. Co. 112
Lutcher & Moore Lumber Co. 32
Luten, Daniel B. 48
Luter, Clark A. 48

M

McCalla Co., Harold. 1
McClave-Brooks Co. 1
McClatchie-Marshall Co. 1
McCoy Brandt Machinery Co. 49
McCraty Co., J. B. 49
McDevitt-Fleming Co. 48
McDonald-Churchill Corp. 1
McEwen Lumber Co. 1
McGowan Co., John H. 132
McKee & Co., Arthur G. 41
McLanahan-Edgemoor Mech. Co. 50
McLean Contracting Co. 50
McMeens & Tripp. 48
McMillan, A. 105
McMyler Interstate Co. 34
McNair Lumber Co. 34
McNamara Bros. 42
McWilliams Dredging Co. 48
Machinery Clearing House. 108
Macon Concrete Roller Co. 1
Main, Chas. T. 48
Mal-Gra Casting Co. 38
Mallette, John S. 25
Mallory, J. M. 106
Mallory Mch. Corp. 106
Manasota Lumber Corp. 34
Mandt Body Co. 1
Manhattan Perf. Metal Co. 119
Manitowish Iron Works Co. 132
Manning, M. M. 103
Manning, Maxwell & Moore Inc. 15
Marbleoid Co., The. 26
Marine Bank & Trust Co. 97
Marine Metal & Sup. Co. 109
Marion Steam Shovel Co. 116
Markman Eng. Co. 109
Maryland Pipe Supply Co. 1
Maryland Trust Co. 97
Masters Builders Co., The. 1
Mathews Gravity Carrier Co. 104
Mathews, Justin. 111
Mayer, F. 48
Mead & Co., Richard K. 48
Meadet Mfg. Co., Fred. 26
Medart Patent Fuly Co. 18
Meas & Meas. 48
Meier & Co., Inc., A. J. 48
Memphis Steel Constr. Co. 97
Merchants National Bank. 97
Merchants & Miners Transportation Co. 129
Michigan Pipe Co. 129
Midvale Steel & Ord. Co. 129

N

Nashville Hardwood Flooring Co. 34
Nashville Ind. Corp. 104-107
National Bank of Commerce, in New York. 1
National Blow Pipe & Mfg. Co., Ltd. 45
National Boiler Protector Co. 1
National Cast Iron Pipe Co. 124
National Cement Co. 124
National Coal Mining News. 104
National Conveying Equip. Corp. 1
National Laboratories, The. 50
National Pressed Steel Co., The. 146
National Steel Fabric Co. 112
National Steel Rail Co. 112
National Transit Pump & Mch. Co. 131
National Tube Co. 1
National Water Supply Co. 131
Neville, Melver, Barnes & Co. 96
New Jersey Wire Cloth Co. 26
Newman Clock Co. 1
Newman Mfg. Co. 54
Nicholson File Co. 54
Niles-Bement-Pond Co. 15
Nordberg Mfg. Co. 1
Normoyle & Sons, Inc., M. 50
North America Savings & Loan Co. 97
North-Eastern Const. Co. 97
Northern Fire Apparatus Co. 48
Norwalk Iron Works Co. 1
Nussbaum & Co., V. M. 1
Nute, McGhee, Geary Co., Inc. 9
Nuveen & Co., John. 9

O

O'Brien & Yost. 48
O'Brien Machinery Co. 110
Oconee Brick & Tile Co. 30
Oden-Elliott Lumber Co. 36
Oliver Iron & Steel Co. 48
Ophuls, Hill & McCreary. 48
Oregon Forwarding Co. 97
Osgood Co. 116
Otis Elevator Co. 1
Otis, R. R. 116
Owen Bucket Co. 116
Owensboro Sewer Pipe Co. 132
Oxweld Acetylene Co. 1

P

Pacific Flush-Tank Co. 127
Pacific Tank & Pipe Co. 127
Parkes Engineering Co. 50
Parsons, Klapp, Brickerhoff & Douglas. 49
Patten Mfg. Co. 119
Patterson Steel Co. 24
Paxon Co., J. W. 39
Payne & Co., N. B. 111
Pennsylvania Drilling Co. 51
Pennsylvania Pump & Compressor Co. 114
Permutit Co., The. 11
Petersburg Sand & Gravel Corp. 121
Petroleum Iron Works Co. 129

Plannmueller Engineering Co. 104
Phoenix Iron Co. 24
Photostat Corp. 51
Pick & Co., Albert. 7
Pickering Governor Co. 7
Pipe & Contractors Supply Co. 109
Pittsburgh-Des Moines Steel Co. 24
Pittsburgh Filter & Engr. Co. 11
Pittsburgh Machinery & Equipment Co. 41
Pittsburgh Steel Co. 41
Pittsburgh Testing Laboratory. 50
Plymouth Cordage Co. 10
Pope Co., Frank B. 114
Porter Co., H. K. 114
Portsmouth Refractories Co. 10
Potts & Co., Henry. 107
Pottstown Steel Co. 21
Pottwell Co., Wm. 1
Power Mfg. Co. 128
Power Piping Co. 128
Power Specialty Co. 9
Prentiss & Co., Inc., Henry. 110
Prest-O-Lite Co. 40
Progressive Mfg. Co. 147
Proposal Advertisements. 98-99-100
Protexol Corp. 32
Pulsometer Steam Pump Co. 54
Putnam Machine Works. 1

R

Randle Machinery Co. 1
Ransome Concrete Mch. Co. 1
Raymond Bros. Imp. Pld. Co. 41
Raymond Mfg. Co., Ltd. 12
Reading Chain & Block Corp. 17
Reed & Ducker. 1
Reeves Pulley Co. 18
Refrinite Co., The. 18
Regnas & Co., J. R. 48
Reid, J. G. 48
Reinberg & Sons Co., Edw. 45
Republic Iron & Steel Co. 20
Richards-Wilcox Mfg. Co. 20
Richmond Safety Gate Co. 1
Richmond Structural Steel Co. 31
Ridgway & Son Co. 120
Ripley Fdry. & Mch. Co. 120
Ritter-Conley Co., Wm. C. 16
Roanoke Iron & Bridge Wks. 24
Roberts Filter Mfg. Co. 11
Robertson Co., H. H. 1
Robins & Co., A. K. 1
Robins Conveying Belt Co. 127
Robinson & Co., Dwight P. 49
Robinson & Orr. 112
Robinson & Son Co., John A. 119
Rollins & Co., Sim D. 104
Ross-Meehan Foundries. 38
Russ Engineering Co. 6
Russell Machine Co. 105
Ryerson & Son, Jos. T. 1

S

Salem Fdy. & Mch. Wks. 38
Samlar Bros. Co. 111
Samson Cordage Co. 38
Sanborn & Co., W. T. 38
Sanders & Sweeney. 49
Sapulpa Refining Co. 16
Sauerman Bros. 120
Savage Mountain Fire Brick Co. 10
Savannah Blow Pipe Co. 10
Savannah Creosoting Co. 32
Scaife & Sons Co., Wm. B. 11
Scheinert Co., R. 108
Schoedinger, F. O. 1
Schofield's Sons' Co., J. S. 7
Scotfield Engineering Co. 49
Seranton Forging Co. 38
Seeger Machine Tool Co. 108
Sellers & Co., Inc., Wm. 9
Service Equipment Co. 111
Seyfert's Sons, Inc., L. F. 111
Sharpville Boiler Works. 105
Shaw Crane Works. 1
Shearer, C. E. 1

Shepard Electric Crane & Hoist Co. 17
Sherman Machine & Iron Works, N. S. 51
Sherwood, E. C. 111
Shreveport Blow-Pipe & Sheet Iron Works, Ltd. 45
Sidney Elevator Works. 1
Sims Co., The. 49
Simson, Julian S. 48
Sirrine & Co., J. E. 1
Skinner & Co., Inc., R. D. 97
Slayton & Co., W. L. 97
Smith Co., Oscar T. 131
Smith Co., S. Morgan. 131
Smith Co., The. 49
Smith-Courtney Co. 50
Smythe Co., S. R. 50
Snead Architectural Iron Works. 24
Sonneborn Sons, Inc., L. 130
Southern Boiler & Tank Wks. 1
Southern Cotton Oil Co. 1
Southern Creosoting Co., Ltd. 32
Southern Cypress Manufacturers' Assn. 1
Southern Electro Steel Co., Inc. 38
Southern Hotel. 1
Southern Ice Machine Co. 12
Southern Iron & Equip. Co. 112
Southern Metal Co. 42
Southern Mosaic Tile Co. 30
Southern Paving Constr. Co. 32
Southern Sheet & Tin Plate Co. 36
Southern States Port. Cem. Co. 124
Southern Steel Products Co. 25
Southern Textile Machinery Co. 40
Southern Wood Preserving Co. 32
Southland Steamship Co. 1
Southside Fdry. & Mch. Wks. 106
Speed & Kearney. 50
S. P. F. Wood Preserving Co., Inc. 32
Spiker & Loe. 50
Spray Engineering Co. 1
Standard Brick Co. 30
Standard Cement Construction Co. 36
Standard Pressed Steel Co. 1
Starrett Co., L. S. 48
Steel, John A. Jr. 48
Steele & Sons, J. C. 30
Stevens Bros. & Co. 10
Stewart Electric Co., John A. 107
Stewart Iron Works Co. 1
Stimpson, Edwin B. 148
Stone & Webster, Inc. 46-49
Straley, Daniel B. 1
Stroudsburg Engine Works. 118
Stuebing Truck Co. 114
Sullivan Machinery Co. 114
Sumter Brick Co. 30
Sun Shipbuilding Co. 1
Sweet's Steel Co. 113
Sydnor Pump & Well Co., Inc. 130

T

Table of Contents. 53
Tait & Nordmeyer Engr. Co. 50
Tarr, Inc., Louis A. 106
Technical Products Co. 1
Teleco, Inc. 51
Tennessee Coal, Iron & R. Co. 23
Terry Mfg. Co. 120
Texas Co. 1
Texhoma Oil & Refining Co. 1
Thomas Gate Bar Co. 9
Titus, E. E. 40
Todd & McCullough. 96
Toomey, Inc., Frank. 105
Transmission Ball Bearing Co. 1
Traylor Engin'g & Mfg. Co. 7
Triumph Electric Co. 1
Triumph Ice Machine Co. 1
Trumbull Steel Co. 37
Truscon Steel Co. 3
Tucker & Laxton. 49
Turner Architectural Service. 48
Turner, C. A. P. 48
Turner Co., C. 131

U

Underwood-Walker Co., Inc., The. 121
Union Drawn Steel Co. 1
Union Mining Co. 10
Union Sulphur Co. 61
United Iron Works, Inc. 1
United Railway Supply Co. 41
Universal Road Mch. Co. 1
U. S. Cast Iron Pipe & Fdry. Co. 128

V

Van Dorn Iron Works Co. 27
Vendor Slate Co. 36
Vilter Mfg. Co. 12
Virginia Bridge & Iron Co. 25
Virginia Mch. & Well Co., Inc. 130
Vogt Machine Co., Henry. 12
Vonnegut Hardware Co. 1

W

Wadsworth, Howland & Co. 1
Wagner Electric Mfg. Co. 1
Wallace & Crenshaw. 48
Wall Mfg. Supply Co., P. 11
Wall & Weidner Boiler Co., The. 6
Ward's Sons Co., Edgar T. 123
Warren Bros. Co. 123
Warsaw Elevator Co. 21
Weber Co., F. 1
Wehr & Walden. 80
Weir Frog Co. 113
Weissinger, Chas. 96
Weller, Francis R. 48
Weller Mfg. Co. 126
Wells, George H. 81
Westbrook Elevator Co., W. J. 81
Westbrook Elevator Mfg. Co., Inc. 31
Western Electric Co. 18
Western Tool & Mfg. Co. 1
Westinghouse Electric & Mfg. Co. 2
Westinghouse Traction Brake Co. 1
West Virginia Fire Clay Mfg. Co. 1
West Virginia Rail Co. 112
Wetherill & Co., Inc., Robt. 1
Wheeling Steel Products Co. 1
Whitcomb Co., Geo. D. 114
White Construction Co., Inc. 1
White Engineering Corporation, The J. G. 49
White, Gilbert C. 48
White Oak Corporation. 1
Whitlock Cordage Co. 1
Whiting Co., Wm. S. 41
Whitinsville Spinning Hsg. Co. 1
Whitwire Spencer Steel Corp. 1
Widmer Engineering Co. 1
Wier Lumber Co., R. W. 34
Wiley & Co., Inc. 48
Wilfong Iron Works Co. 1
Willard F. 21
Williams Mch. Co., Ltd. A. R. 107
Williams Patent Crusher & Pulverizer Co. 1
Willis, W. N. 48
Wilson Co., The. 24
Wilson & Co., E. H. 111
Wilson Corp., J. G. 87
Wilson Machinery Co. 1
Wingfield & Hundley. 13
Wood Drill Works. 1
Wood & Co., Inc., A. M. 107
Wood & Co., R. D. 64
Wood & Lane. 1
Wood Iron & Steel Co., Alton. 18
Wood's Sons Co., T. B. 15
Woodstock Slag Co. 121
Woodward, Baldwin & Co. 1
Worcester & Co., F. L. 1
Worthington Pump & Mch. Corp. 182
Wright Machine Co. 1
Wright Mfg. Co. 47
Wyckoff & Son Co., A. 129

Y

Yale & Towne Mfg. Co. 1
Young & Seiden Co. 87
Youngtown Boiler & Tank Co. 43
Youngtown Sheet & Tube Co. 1

Z

Zelnicker Sup. Co., Walter. 111
Zouri Drawn Metals Co. 52

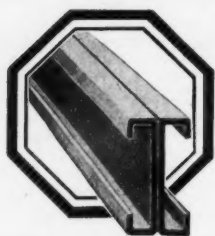
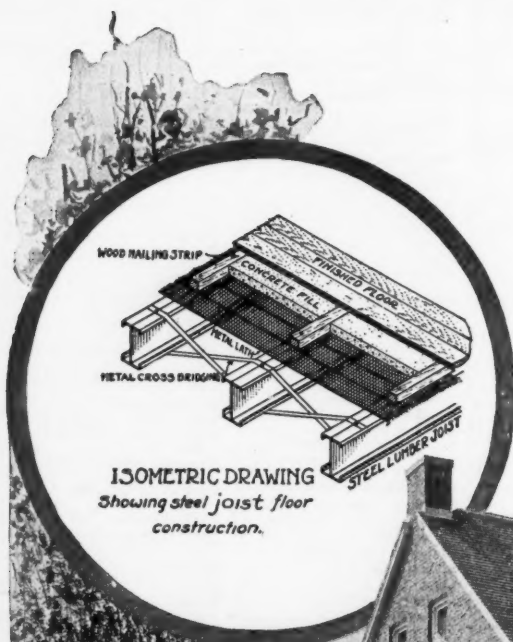
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